cc: DAB RS

MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP

1880 Century Park East, Suite 350, Los Angeles, California 90067
TEL: (310) 373-9790 FAX: (310) 373-2915 E-MAIL: jsm6@ix.netcom.com

July 9, 2002

VIA FEDERAL EXPRESS

Barbara S. Blinderman
Nelson E. Brestoff
Dennis A. Winston

Dennis Dickerson
Executive Officer
California Regional Water Quality Control Board -
Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Re: Petition for Review – Cenco Refining Company

Dear Mr. Dickerson:

Enclosed please find a copy of a Petition for Review filed with the State Water Resources Control Board on behalf of PDC Norwalk LLC and relating to the Cenco Refinery.

Please prepare the Regional Board's record in this matter. Please also furnish a list of persons known to the Regional Board to have an interest in the subject matter of the petition.

Thank you for your cooperation.

Sincerely yours,

Joel S. Moskowitz

nrh:JSM

Enclosure

JOEL S. MOSKOWITZ (State Bar No.048374)
MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP
1880 Century Park East, Suite 350
Los Angeles, California 90067-1603

Telephone: (310) 373-9790;
Facsimile: (310) 373-2915

Attorneys for Petitioner, PDC Norwalk, LLC

BEFORE THE STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In re petition of the PDC Norwalk, LLC, a Delaware Limited Liability Company, Petitioner	PETITION NO: _____ PETITION FOR REVIEW (Water Code § 13320)

This is a Petition for Review filed by PDC Norwalk, LLC ("PDC") pursuant to Water Code Section 13320 and California Code of Regulations § 2050 from the failure of the Regional Water Quality Control Board, Los Angeles Region ("Regional Board") to adequately respond to a request that it require Cenco Refining Company ("Cenco") to investigate and remediate a condition of explosive gasoline vapors that have migrated from Cenco's refinery to PDC's property.

At the time that the request to the Regional Board was made, the gasoline fumes were approximately 39% in air, or 390,000 parts per million in the vicinity of PDC's occupied commercial building. Nevertheless the Regional Board made no response whatsoever to the request, and continues to pursue an imperceptibly

incremental, measured investigation of the refinery property in general and has not issued any directive to Cenco to abate the explosive vapors at PDC's property in particular. Absent action by this Board, PDC will not receive relief in the foreseeable future from the potentially imminent explosion that threatens life, health and property in the City of Santa Fe Springs.

PETITION FOR REVIEW

(1) Name and Address of Petitioner

PDC Norwalk, LLC
Attention: Ira Levin, Executive Vice President
120 North Robertson Blvd.
Los Angeles, California 90048-3115

(2) Specific Action State Board is Requested to Review

The State Board is requested to review the failure to of the Regional Board to adequately respond to PDC's request to the Regional Board for investigation and remediation of a gasoline plume that has migrated from Cenco's refinery to PDC's property. A copy of said request for action is attached hereto as "Exhibit A."

(3) Date on Which The Request for Action Was Made

May 8, 2002[1]

(4) Statement of Reasons for the Petition

Petitioner's statement of reasons why the challenged action was inappropriate and improper is attached hereto as Exhibit B, which is incorporated herein by reference.

(5) The Manner in Which Petitioner is Aggrieved

Petitioner's property has received extremely high concentrations of explosive

---

[1] The request (Exhibit A) was delivered the Regional Board by Federal Express on May 8, 2002. However, it was sent on May 6, 2002 and the same request had been sent by electronic mail to Dennis Dickerson, the Regional Board's Executive Officer, on May 3, 2002.

This request was a more specific version of a request that had been sent earlier this, year, which similarly resulted in no action, and which is the subject of a pending appeal, which is being held in abeyance pending processing of this renewed request and appeal.

vapor migrating from Cenco's refinery. Unless this condition is characterized and abated, and interim action is taken to reduce these concentrations, the vapors present an imminent and substantial danger of explosion with consequent injury to persons and property, as well as exposure of persons to carcinogenic substances.

(6) Specific Action Requested

The State Board is requested to direct the Regional Board to cause Cenco to take interim action to extract from the soil the extreme concentrations of explosive vapors at PDC's property and thereafter to characterize and abate those gas concentrations both on and migrating to PDC's property. Specifically, the Regional Board should be ordered to:

1. Issue a Cleanup and Abatement Order to Cenco Refining Company directing Cenco Refining Company to immediately come onto the property of PDC Norwalk, LLC and to abate the high levels of explosive gases thereon.
2. Include in that Cleanup and Abatement Order further a direction to Cenco to promptly characterize the subject methane plume and to thereafter prevent further explosive gases from reaching the property of PDC Norwalk, LLC.

(7) Statement of Points and Authorities on Legal Issues

Petitioner's points and authorities are set forth in Exhibit B, which is incorporated herein by reference.

(8) List of Interested Persons Known by Regional Board

Attached herein as Exhibit C is a request by letter to Dennis Dickerson, Executive Officer of the Regional Board, for a list of persons known by the Regional Board to have an interest in the subject matter of the petition.

(9) Statement that Petition Sent to Regional Board and the Discharger

A copy of this petition has been sent to the California Regional Water Quality Control Board, Los Angeles Region under cover of Exhibit C. Copies of the Petition

have been sent to the agent for service of Cenco Refining Company and its counsel.

(10) Copy of Request for Record to Regional Board

Exhibit C includes a request that the Regional Board prepare its record in this matter.

Dated: July 9, 2002

JOEL S. MOSKOWITZ
MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP

by _____
Joel S. Moskowitz
Attorneys for Petitioner, PDC Norwalk, LLC

MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP*

1880 Century Park East, Suite 850, Los Angeles, California 90067

TEL: (310) 785-0550 FAX: (310) 375-2915 E-MAIL: jsm6@ix.netcom.com

May 6, 2002

VIA FEDERAL EXPRESS AND E-MAIL

Joel S. Moskowitz
DIRECT TEL: (310) 575-9790

Barbara S. Blinderman
Nelson E. Brestoff
Barry A. Gordon*
Rock Hankin*
Joel S. Moskowitz
Dennis A. Winston
*OF COUNSEL

Dennis Dickerson
Executive Officer
California Regional Water Quality Control Board -
Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Re: Cenco Refining Company

Dear Mr. Dickerson:

This letter is written on behalf of PDC Norwalk, LLC. On March 12, 2002 you sent a letter to me indicating what the Regional Board had directed be done concerning methane in the vicinity of the Cenco Refinery.

We believe these actions to be inadequate to address the extremely high and increasing levels of methane migrating from the Cenco Refinery to PDC's property. PDC Norwalk, LLC therefore requests that the Regional Board take the following action:

1. That the Regional Board issue a Cleanup and Abatement Order to Cenco Refining Company directing Cenco Refining Company to immediately come onto the property of PDC Norwalk, LLC and to abate the high levels of methane thereon.

2. That said Cleanup and Abatement Order further direct Cenco to promptly characterize the subject methane plume and to thereafter prevent further methane from reaching the property of PDC Norwalk, LLC.

Thank you for your cooperation.

Sincerely yours,

Joel S. Moskowitz

nrh:JSM

EXHIBIT B TO PETITION FOR REVIEW:
STATEMENT OF REASONS AND POINTS AND AUTHORITIES

A. Statement of Facts

On May 8, 2002, the Regional Board received by Federal Express a request for action by petitioner, PDC Norwalk, LLC ("PDC") addressed to Dennis Dickerson, Executive Officer of the Regional Water Quality Control Board, Los Angeles Region ("Regional Board"). (That Request is attached as Exhibit A to this Petition.) PDC requested:

1. That the Regional Board issue a Cleanup and Abatement Order to Cenco Refining Company directing Cenco Refining Company to immediately come onto the property of PDC Norwalk, LLC and to abate the high levels of methane thereon.
2. That said Cleanup and Abatement Order further direct Cenco to promptly characterize the subject methane plume and to thereafter prevent further methane from reaching the property of PDC Norwalk, LLC.

PDC's latest quarterly monitoring report, prepared in response to the City of Santa Fe Springs methane monitoring requirements, showed that high levels of explosive gases (up to 39%) had migrated from the Cenco refinery property to PDC's property. Other reports referenced therein show that this migration has similarly impacted other neighboring facilities, including those owned by the Carson Company and the State Hospital.

The Regional Board did not respond at all to this request. Even the inapposite and glacial actions of the Regional Board were not furnished to PDC – despite a formal request for same in under the Public Records Act.

///

///

B. **The State Board Should Review the Regional Board's Inaction Under Water Code Section 13320**

Water Code Section 13320(a) provides in pertinent part as follows:

> (a) Within 30 days of any action or failure to act by a regional board under subdivision (c) of Section 13225, [or] Article 4 (commencing with Section 13260) of Chapter 4, Chapter 5 (commencing with Section 13300), . . . any aggrieved person may petition the state board to review that action or failure to act. In case of a failure to act, the 30-day period shall commence upon the refusal of the regional board to act, or 60 days after request has been made to the regional board to act. The state board may, on its own motion, at any time, review the regional board's action or failure to act and also any failure to act under Article 3 (commencing with Section 13240) of Chapter 4.

In this case, the Regional Board failed to act under Water Code Section 13225(a) ["Each regional board, with respect to its region, shall: (a) Obtain coordinated action in water quality control, including the prevention and abatement of water pollution and nuisance."], as well as Water Code Section 13300 *et seq.* [Cleanup and Abatement/Cease and Desist orders].

The State Board should direct: (1) That the Regional Board issue a Cleanup and Abatement Order to Cenco Refining Company directing Cenco Refining Company to immediately come onto the property of PDC Norwalk, LLC and to abate the high levels of methane thereon; (2) That said Cleanup and Abatement Order further direct Cenco to promptly characterize the subject methane plume and to thereafter prevent further methane from reaching the property of PDC Norwalk, LLC.

This order should specify Cenco must begin characterization by replicating the samples obtained by Alaska Petroleum Environmental Engineering *at the location where those samples were taken – not in a planter box.* It should further direct the Regional Board to require Cenco to characterize the vapor plume at PDC's property – *not vapor in the ambient air in the neighborhood, or vapor at the huge refinery property in general.* During this process, the State Board should direct the Regional Board to comply with the Public Records Act and furnish the requested documents to PDC.

The Regional Board's priority is apparently husbanding its resources, and Cenco's, rather than responding to a rapidly evolving emergency. But the situation at PDC is–literally–explosive and public agencies should deal with this reality rather than be forced to compose reasons after the fact why they did not.

Dated: July 9, 2002

JOEL S. MOSKOWITZ
MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP

by _____
Joel S. Moskowitz
Attorneys for Petitioner, PDC Norwalk, LLC

MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP*

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Barbara S. Blinderman
Nelson E. Brestoff
Dennis A. Winston

July 9, 2002

VIA FEDERAL EXPRESS

Dennis Dickerson
Executive Officer
California Regional Water Quality Control Board -
Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Re: Petition for Review – Cenco Refining Company

Dear Mr. Dickerson:

Enclosed please find a copy of a Petition for Review filed with the State Water Resources Control Board on behalf of PDC Norwalk LLC and relating to the Cenco Refinery.

Please prepare the Regional Board's record in this matter. Please also furnish a list of persons known to the Regional Board to have an interest in the subject matter of the petition.

Thank you for your cooperation.

Sincerely yours,

Joel S. Moskowitz

nrh:JSM

Enclosure

PROOF OF SERVICE BY FEDERAL EXPRESS

Joel S. Moskowitz declares as follows:

I am an active member of the State Bar of California, am over the age of 18 years, and am not a party to the within entitled action. My business address is 1880 Century Park East, Suite 350, Los Angeles, California 90067-1603.

On July 9, 2002 I deposited in box regularly maintained by Federal Express, an express service carrier, in a sealed envelope designated by Federal Express with delivery fees provided for, at Oakdale, California, a true and correct copy of the within:

PETITION FOR REVIEW

addressed as follows:

Dennis Dickerson
Executive Officer
Regional Water Quality Control Board
Los Angeles Region
320 West 4th St., Ste 200
Los Angeles, CA 90013

David R. Isola
Isola Bowers LLP
701 S Ham Ln 2FL
Lodi, CA 95242

CT Corporation System
Agent for Service of Process
Cenco Refining Company
818 West Seventh Street
Los Angeles, CA 90017

Executed on July 9, 2002 at Oakdale, California.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Joel S. Moskowitz

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

October 25, 2002

Mr. Michael J. Levy
Staff Counsel
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814

PETITION OF PDC NORWALK, LLC FOR FAILURE TO ISSUE CLEANUP AND ABATEMENT ORDER FOR CENCO REFINERY, LOS ANGELES REGION SWRCB/OCC FILE A-1490 (REGIONAL BOARD SLIC FILE NO. 318A)

Dear Mr. Levy:

Attached is Los Angeles Regional Board staff response to the subject petition. Please let us know if you need further information in this matter.

If you have any questions or need clarification for this matter, please contact Mr. J.T. Liu at (213) 576-6667 or Mr. Paul Cho at (213) 576-6721. Please contact Mr. Robert Sams at (213) 576-6797 with respect to any legal issues. Thank you for your attention to this matter.

Sincerely,

Dennis A. Dickerson
Executive Officer

Enclosure: Response to Petition

cc: See Interested Party list and corresponding addresses

MAILING LIST

Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
Robert Sams, Office of Chief Counsel, State Water Resources Control Board
Gorden Innes, Division of Water Quality, State Water Resources Control Board
David Bacharowski, Los Angeles Regional Water Quality Control Board
Arthur Heath, Los Angeles Regional Water Quality Control Board
Ju-Tseng Liu, Los Angeles Regional Water Quality Control Board
Paul Cho, Los Angeles Regional Water Quality Control Board
Frederick Latham, City of Santa Fe Springs
Dave Klunk, City of Santa Fe Springs Fire Department
Sayreh Amir, State Department of Toxic Substances Control
Larry Brown, South Coast Air Quality Management District
Ira Levin, PDC Norwalk, LLC
Joel Moskowitz, Moskowitz, Brestoff, Winston & Blinderman, LLP
CT Corporation System, CENCO Refining Company
Mike Barranco, CENCO Refining Company
Mark Miller, Robertson Properties Group
Sabrina Burton, Robertson Properties Group
David Isola, Isola Bowers LLP
Russell Juncal, Ground Zero Analysis, Inc.

Petition of
PDC Norwalk, LLC

SWRCB/OCC File A-1490

SWRCB
Office of Chief Counsel
INTERESTED PERSONS
MAILING LIST

09-17-02

Los Angeles
Regional Water Quality Control Board
Failure to Issue Cleanup and Abatement
Order for Cenco Refinery

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Russell Juncal
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1965 Hilt Road
Hornbrook, CA 96044-9773

ATTACHMENT

LOS ANGELES REGIONAL BOARD RESPONSE TO PETITION OF PDC NORWALK, LLC FOR FAILURE TO ISSUE CLEANUP AND ABATEMENT ORDER TO CENCO REFINERY, 12345 LAKELAND ROAD, SANTA FE SPRINGS
SWRCB/OCC FILE NO. A-1490 (REGIONAL BOARD SLIC FILE NO. 318A)

This response is prepared in the same order of petitioner's argument stated in their July 9, 2002 submittal to the State Water Resources Control Board ("State Board"). Petitioner's statements are in *italic*.

I. Page 1, 2nd Paragraph to Page 2, 1st Paragraph

"At the time that the request to the Regional Board was made, the gasoline fumes were approximately 39% in air, or 390,000 parts per million in the vicinity of PDC's occupied commercial building. Nevertheless the Regional Board made no response whatsoever to the request, and continues to pursue an imperceptibly incremental, measured investigation of the refinery property in general and has not issued any directive to Cenco to abate the explosive vapors at PDC's property in particular. Absent action by this Board, PDC will not receive relief in the foreseeable future from the potentially imminent explosion that threatens life, health and property in the City of Santa Fe Springs."

Response: Prior to the request that was made by the petitioner, Regional Board staff discussed the methane issue with Cenco Refining Company ("CENCO") in October 2001 subsequently after receiving the October 25, 2001 letter from the Fire Chief of the City of Santa Fe Springs ("Fire Chief"). In addition, Regional Board staff requested the petitioner's consultant, Alaska Petroleum Environmental Engineering, Inc. ("APEEI"), to forward soil gas reports containing information on the detection of elevated levels of methane. APEEI sent a letter dated November 5, 2001 with soil gas reports to CENCO. Additionally, in the December 17, 2001 letter from Regional Board staff to CENCO, a status update of a supplemental soil investigation, preparation of a remedial action plan, and human health risk assessment workplan were requested to be submitted by January 31, 2002 in order to review CENCO's response regarding the methane issue. While waiting for CENCO's response after CENCO requested a two-week extension in the January 31, 2002 letter, the petitioner sent the February 6, 2002 letter requesting for Regional Board action. Regional Board staff immediately issued the February 8, 2002 letter requesting CENCO's soil gas remediation and technical reports per California Water Code section 13267 and Cleanup and Abatement Order (CAO) No. 97-118 issued on August 25, 1997 to CENCO Refinery. Regional Board staff also met with the Fire Chief to discuss soil gas concerns on February 8, 2002. On February 8, 2002, the City of Santa Fe Springs Fire Department ("Fire Department") performed its own sampling and

found that there was no danger from explosive levels of methane on the petitioner's property. The Fire Chief stated in his February 13, 2002 letter that he previously forwarded the soil gas report prepared by APEEI to the Regional Board without a technical review by the Fire Department, and that the department would occasionally check the area to monitor methane levels. The City of Santa Fe Springs has been requiring methane monitoring at the facility within 250 feet from an abandoned or old or both oil/gas well and 1,000 feet from a landfill. Based on CENCO's assessment report dated April 30, 2002, there are several oil/gas wells located on or near the petitioner's property where elevated levels of methane have been detected. Among the ten methane monitoring wells at the petitioner's property, only one well, SV9, located in the northeastern corner of the petitioner's property has detected elevated levels of methane at 20 feet below ground surface. Regional Board staff reviewed and approved CENCO's soil gas investigation workplan in the letter dated March 12, 2002, and are currently working with CENCO and the City of Santa Fe Springs to determine whether any offsite contamination has originated from the CENCO site as required by Provision 1 of the CAO No. 97-118 which requires cleanup and abatement of onsite and offsite soil and groundwater contamination. Therefore, CENCO has already been directed by the Regional Board to investigate any potential soil gas concerns.

II. Page 3, 1st Paragraph

"Unless this condition is characterized and abated, and interim action is taken to reduce these concentrations, the vapors present an imminent and substantial danger of explosion with consequent injury to persons and property, as well as exposure of persons to carcinogenic substances."

Response: There are ten soil gas monitoring wells, SV1 to SV10, on the petitioner's property. Based upon soil gas reports prepared by the petitioner's consultant, only samples taken at 20 feet below ground surface from the gas monitoring well SV9 have detected elevated levels of methane. On February 8, 2002, the Fire Department performed sampling and found no danger from explosive levels of methane in the vicinity of the CENCO Refinery as stated in the February 13, 2002 letter by the Fire Chief. The Fire Chief also stated in the February 13, 2002 letter that the Fire Department would occasionally check the area with a combustible gas indicator to reassure that the methane problem does not become dangerous, and that they will notify the Regional Board immediately if they find any indication of methane gas at 10% the lower exposure limit (LEL) in air or greater. To date, no elevated methane notification has been made to the Regional Board from the Fire Department.

III. Page 3, 2nd Paragraph

"Specifically, the Regional Board should be ordered to: 1. Issue a Cleanup and Abatement Order to Cenco Refining Company directing Cenco Refining Company to immediately come onto the property of PDC Norwalk, LLC and to abate the high levels of explosive gases thereon. 2. Include in that Cleanup and Abatement Order further a direction to Cenco to promptly characterize the subject methane plume and to thereafter prevent further explosive gases from reaching the property of PDC Norwalk, LLC."

Response: Provision 1 of the CAO No. 97-118 requires cleanup and abatement of onsite and offsite soil and groundwater contamination originating from the CENCO Refinery. As stated in Response I, Regional Board staff required additional investigations related to methane and are currently working with the City of Santa Fe Springs and CENCO to adequately respond to methane issues under the CAO No. 97-118. A final plan for the soil investigation and remedial design, which will be submitted shortly by CENCO as stated in the September 27, 2002 Status Update Report, should address all the technical concerns relating to methane. The City of Santa Fe Springs requires methane monitoring around abandoned or old or both old oil/gas wells. It would not be reasonable to direct CENCO to abate elevated levels of methane on the petitioner's property based upon samples taken at 20 feet below ground surface from only one soil vapor monitoring well showing elevated levels of methane. In addition, we believe it is not appropriate to require CENCO to characterize the methane plume at the petitioner's site without evaluating potential methane source(s) at the CENCO site and the 'methane zone' identified by the City of Santa Fe Springs. The soil gas assessment is on-going as stated and all necessary technical requirements will be addressed to CENCO pursuant to Provision 1 of the CAO No. 97-118. Therefore, the petitioner's request is redundant.

IV. Exhibit B, Page 1, 2nd Paragraph

"PDC's latest quarterly monitoring report, prepared in response to the City of Santa Fe Springs methane monitoring requirements, showed that high levels of explosive gases (up to 39%) had migrated from the Cenco refinery property to PDC's property. Other reports referenced therein show that this migration has similarly impacted other neighboring facilities, including those owned by the Carson Company and the State Hospital."

Response: There are abandoned or old or both old oil/gas wells and a landfill within the neighboring facilities. Methane has been detected from soil vapor monitoring wells from these neighboring facilities according to the City of Santa Fe Springs. Based upon a summary presented in the July 31, 2002 Status Update Report by CENCO, the California State Division of Oil and Gas requires abandoned or old or both old oil/gas wells to be re-abandoned whenever new construction or land use changes occur due to documented problems in the Santa Fe Springs former oil field and elsewhere where methane concerns have been identified such as the Fairfax area in Los Angeles. Well Exxon #4, located in

the north-central portion of the Coaster property (12330-12434 Lakeland Boulevard, Santa Fe Springs), for example, was re-abandoned in 1988 and required to have a venting system which consists of a vent cone with piping along the building wall that terminates above the roof line as required by the California State Division of Oil and Gas. Based on previous monitoring of the top of the vent pipe for the Well Exxon #4, a methane reading of 23% LEL was recorded. Levels of up to 10% methane by volume also have been detected at sites adjacent to the Kalico #1 Landfill located southeast of the CENCO Refinery. The soil gas assessment related to the detection of elevated levels of methane is on-going in order to properly investigate methane concentrations. It is, therefore, premature to conclude at this time without further investigation that high levels of explosive gases have migrated from CENCO to the petitioner's property and other neighboring facilities.

V. Exhibit B, Page 2, 4th Paragraph

"This Order should specify Cenco must begin characterization by replicating the samples obtained by Alaska Petroleum Environmental Engineering at the location where those samples were taken – not in a planter box. It should further direct the Regional Board to require Cenco to characterize the vapor plume at PDC's property – not vapor in the ambient air in the neighborhood, or vapor at the huge refinery property in general. During this process, the State Board should direct the Regional Board to comply with the Public Records Act and furnish the requested documents to PDC."

Response: In the letter dated July 3, 2002, Regional Board staff requested the petitioner for any information the petitioner might have indicating that the migration of methane from the CENCO Refinery has moved onto the petitioner's property. Regional Board staff requested this information because, based on a review of the investigation data collected by CENCO to date, it is not clear whether soil gas is migrating from the CENCO Refinery to the petitioner's property. In order to address the petitioner's claims of methane migration, CENCO proposed further investigation (April 30, 2002 Status Update Report) including obtaining additional soil gas data around point sources and correlating methane data obtained from well casings to the dissolved hydrocarbons in groundwater. On July 30, 2002, APEEI submitted on behalf of the petitioner its response to the July 3, 2002 Regional Board staff letter. APEEI claimed that the free product and its degradation and subsequent migration from the CENCO Refinery is the primary cause of the elevated concentrations of methane at the petitioner's property based on the fuel hydrocarbons detected from the soil gas monitoring well SV9. CENCO submitted the July 31, 2002 Status Update Report indicating that the dissolved methane and gasoline hydrocarbons, and wellhead methane readings were not strongly correlated. CENCO submitted the September 27, 2002 Status Update Report stating that they would submit a workplan for additional soil investigation for fuel hydrocarbons and that the areas of the highest soil gas concentrations identified during the investigation would be mitigated by soil vapor extraction. CENCO performed ambient air sampling on February 28, 2002 and March 1, 2002 at and downgradient of the refinery to identify conditions that might

present a fire or explosive/hazard situation and to assist in evaluating the potential for methane in soil gas at depth in soil to migrate to the surface. This ambient sampling was a part of the proposed investigation, including vapor transport analysis, vapor monitoring of groundwater monitoring wells, soil gas source evaluation, gas fingerprinting, and groundwater and vadose zone monitoring, in the previous workplan which was approved by the Regional Board staff on March 12, 2002. The petitioner claimed that the Regional Board did not submit information to them under the Public Records Act. The petitioner has also been informed by Regional Board staff in letters dated March 12, 2002 and July 3, 2002 regarding actions taken by the Regional Board. Copies of the letters from the Regional Board staff to CENCO were also sent to the petitioner. Every public file review request is processed according to the established Regional Board file review procedures for the Public Records Act.

P. Cho

State Water Resources Control Board

Winston H. Hickox
Secretary for Environmental Protection

Office of Chief Counsel
1001 I Street, 22nd Floor, Sacramento, California 95814
P.O. Box 100, Sacramento, California 95812-0100
(916) 341-5161 ♦ FAX (916) 341-5199 ♦ www.swrcb.ca.gov

Gray Davis
Governor

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.swrcb.ca.gov.

TO: Paul Cho, Los Angeles RWQCB

FROM: Michael J. Levy
Staff Counsel
OFFICE OF CHIEF COUNSEL

DATE: November 7, 2002

SUBJECT: PETITION OF PDC NORWALK, LLC (FAILURE TO ISSUE CLEANUP AND ABATEMENT ORDER FOR CENCO REFINERY), LOS ANGELES REGION:
SWRCB/OCC FILE A-1490

Pursuant to your e-mail request dated November 6, 2002, attached is a copy of the administrative record in the above-referenced file for your records.

Attachment

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

October 25, 2002

Mr. Michael J. Levy
Staff Counsel
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95814

PREPARATION OF ADMINISTRATIVE RECORD – IN THE MATTER OF PETITION OF PDC NORWALK, LLC (FAILURE TO ISSUE CLEANUP AND ABATEMENT ORDER FOR CENCO REFINERY), LOS ANGELES REGION SWRCB/OCC FILE A-1490 (REGIONAL BOARD SLIC FILE NO. 318A)

Dear Mr. Levy:

We are transmitting, herein, the pertinent Administrative Record in response to the above named petition for your review. However, we reserve the right to augment the Administrative Record, as necessary.

Should you have any questions or need more information, please contact Mr. Paul Cho at (213) 576-6721 or Mr. J.T. Liu at (213) 576-6667.

Sincerely,

Dennis A. Dickerson
Executive Officer

Enclosures

cc: See Interested Party list and corresponding addressees

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Robert Sams, Office of Chief Counsel, State Water Resources Control Board
Gorden Innes, Division of Water Quality, State Water Resources Control Board
David Bacharowski, Los Angeles Regional Water Quality Control Board
Arthur Heath, Los Angeles Regional Water Quality Control Board
Ju-Tseng Liu, Los Angeles Regional Water Quality Control Board
Paul Cho, Los Angeles Regional Water Quality Control Board
Frederick Latham, City of Santa Fe Springs
Dave Klunk, City of Santa Fe Springs Fire Department
Sayreh Amir, State Department of Toxic Substances Control
Larry Brown, South Coast Air Quality Management District
Ira Levin, PDC Norwalk, LLC
Joel Moskowitz, Moskowitz, Brestoff, Winston & Blinderman, LLP
CT Corporation System, CENCO Refining Company
Mike Barranco, CENCO Refining Company
Mark Miller, Robertson Properties Group
Sabrina Burton, Robertson Properties Group
David Isola, Isola Bowers LLP
Russell Juncal, Ground Zero Analysis, Inc.

Petition of
PDC Norwalk, LLC
SWRCB/OCC File A-1490

SWRCB
Office of Chief Counsel
INTERESTED PERSONS
MAILING LIST
09-17-02

Los Angeles
Regional Water Quality Control Board
Failure to Issue Cleanup and Abatemen
Order for Cenco Refinery

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Russell Juncal
Ground Zero Analysis, Inc.
1965 Hilt Road
Hornbrook, CA 96044-9773

CERTIFICATION

State of California

County of Los Angeles

This is to certify that the enclosed material, consisting of 146 total pages including exhibits, constitute, to the best of my knowledge, a true and correct copy of the written administrative record of the California Regional Water Quality Control Board, Los Angeles Region, in the matter of PDC Norwalk, LLC (Failure to Issue Cleanup and Abatement Order for Cenco Refinery), Los Angeles Region.

Case No. SWRCB/OCC File A-1490

Executed at 320 W. 4th Street, #200, in the County of Los Angeles this 25th day of October, 2002.

Dennis A. Dickerson, Executive Officer

SUMMARY OF RECORD
SWRCB/OCC FILE A-1490

1. Cleanup and Abatement Order No. 97-118 issued on August 25, 1997 for the subject site including Provision 1 which requires cleanup and abatement of onsite and offsite soil and groundwater contamination originating from the CENCO Refinery and Lakeland Property.

2. October 25, 2001 letter from the Fire Chief of the City of Santa Fe Springs to Mr. Dennis Dickerson regarding detections of high levels of methane up to 28% and gasoline vapors up to 20,200 parts per million at the Pacific Distribution Center and other properties in the vicinity of CENCO.

3. November 5, 2001 letter from Mr. R. Glenn Stillman of Alaska Petroleum Environmental Engineering, Inc. to Ms. June Christman of CENCO providing two soil gas reports which are referenced in the October 25, 2002 letter from the Fire Chief to Mr. Dennis Dickerson. This transmittal was requested based upon Regional Board staff telephone discussion with Ms. June Christman on October 31, 2001 and Mr. R. Glenn Stillman on October 30, 2001 for CENCO's response.

4. December 17, 2001 letter from Regional Board staff to Ms. June Christman of CENCO requesting status update of a supplemental soil investigation, preparation of a remedial action plan, and human health risk assessment workplan to be submitted by January 31, 2002.

5. January 31, 2002 letter from Ms. June Christman of CENCO to Regional Board staff requesting an extension.

6. February 6, 2002 letter from Mr. Joel Moskowitz to Mr. Dennis Dickerson requesting for Regional Board action.

7. February 8, 2002 letter from Mr. Dennis Dickerson to Ms. June Christman of CENCO requesting soil gas remediation and technical reports per California Water Code section 13267 and Cleanup and Abatement Order No. 97-118.

8. On February 8, 2002, Mr. Dennis Dickerson met with the Fire Chief of Santa Fe Springs to discuss the soil gas problem (stated in the February 13, 2002 letter from the Fire Chief).

9. February 13, 2002 letter from the Fire Chief of the City of Santa Fe Springs to Mr. Dennis Dickerson stating that the soil gas report compiled by Alaska Petroleum Environmental Engineering, Inc. (and attached to his October 25, 2001 letter to Mr. Dennis Dickerson) was not reviewed by the Fire Department; and that the Fire Department's own sampling performed on February 8, 2002 did not indicate there is

any danger from explosive levels of methane in the area. Also stated that the Fire Department would occasionally check the area with a combustible gas indicator to reassure that the methane problem does not become dangerous.

10. February 13, 2002 letter from Mr. David Isola representing CENCO to Mr. Dennis Dickerson acknowledging that CENCO intends to timely and appropriately respond to the demand by Regional Board.

11. February 14, 2002 meeting between CENCO and Regional Board. CENCO submitted February 15, 2002 letter to Regional Board staff summarizing discussion held at the February 14, 2002 meeting.

12. CENCO submitted workplan dated February 15, 2002, entitled *Workplan for Characterization of Vadose Zone Methane,* prepared by Ground Zero Analaysis, Inc.

13. March 11, 2002 letter from Mr. Moskowitz to Mr. Dennis Dickerson notifying the Regional Board that the Soil Gas Investigation Report for the First Quarter 2002 showed that soil gas concentration had increased from 32% to 42%.

14. Soil Gas Investigation Report, First Quarter 2002 (10th Sampling Event) for Pacific Distribution Center, dated March 2000 and prepared by Alaska Petroleum Environmental Engineering, Inc., showed a high level of methane (42%) from only well SV9 at 20 feet below ground surface. There are ten soil gas monitoring wells, SV1 to SV10. Concentrations of methane from other wells ranged from 0 to 6%.

15. March 12, 2002 letter from Mr. Dennis Dickerson to Ms. June Christman approving CENCO's February 15, 2002 Workplan and requesting technical assessment report by April 30, 2002.

16. March 12, 2002 letter from Mr. Dennis Dickerson to Mr. Moskowitz summarizing Regional Board action after Mr. Moskowitz's February 6, 2002 letter.

17. March 15, 2002 Status Update Report from CENCO which was received.

18. April 30, 2002 Status Update Report from CENCO which was received.

19. May 6, 2002 letter from Mr. Moskowitz to Mr. Dennis Dickerson requesting issuance of a Cleanup and Abatement Order to CENCO.

20. Soil Gas Investigation Report, Second Quarter 2002 (11th Sampling Event) for Pacific Distribution Center, dated May 2002 and prepared by Alaska Petroleum Environmental Engineering, Inc., showing that the methane level from well SV9 at 20 feet below ground surface decreased to 39%. Concentrations of methane from other wells ranged from 0.2 to 5%.

21. May 31, 2002 Regional Board staff memorandum regarding the May 6, 2002 letter from Mr. Moskowitz requesting issuance of a Cleanup and Abatement Order to CENCO.

22. July 3, 2002 letter from Mr. Dennis Dickerson to Mr. Moskowitz regarding request for Regional Board action.

23. July 30, 2002 Response Document received from Alaska Petroleum Environmental Engineering, Inc.

24. July 31, 2002 Status Update Report from CENCO received.

25. August 8, 2002 E-mail from Regional Board staff to CENCO's consultant, Mr. Russell Juncal of Ground Zero Analysis, Inc. regarding technical comments.

26. September 27, 2002 Status Update Report from CENCO received including a plan for additional soil investigation and remedial design.

Administrative Record
No. 1

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. 97-118

REQUIRING POWERINE OIL COMPANY
TO CLEANUP AND ABATE THE EFFECTS OF UNCONTROLLED RELEASES OF
PETROLEUM HYDROCARBONS
TO SOIL AND GROUND WATER

(File No. 85-18)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. The Powerine Oil Company, a California corporation, (hereafter referred to as the Discharger), operates a 88 acre Refinery, located at 12345 Lakeland Road. The refinery includes the Bloomfield Property, located at 10820 Bloomfield Avenue, and interconnecting pipelines from the refinery to its former Marine Terminal located at Berth 73 Port of Long Beach. The Powerine Oil Company is currently owned by Energy Merchant Corporation.

2. The refinery site has been used for refining purposes since 1936. The refinery processes raw materials, including crude oil, raw naphtha to produce petroleum products. The components 1,2-dichloroethane and tetrachloroethene were used at the site and stored near the refinery laboratory in above ground tanks. Tetrachlorethene may have been used at the site as a catalyst activator and 1,2-dichloroethane may have been used as a lead scavenger. The main products produced by the refinery are transportation fuels, including kerosene, jet A fuel, unleaded gasoline, high and low sulfur diesel, fuel oil, and petroleum coke. The refinery also produces refinery gas and hydrogen, which are consumed internally by the refinery. In addition, the refinery produces revenue generating non-fuel by-products such as sulfur and carbon dioxide.

3. From 1968 to March 1986, the Discharger leased a small portion of the Walker property, located at 11240 Bloomfield Avenue, Santa Fe Springs, as a terminalling facility for storage and transferring of asphalt, jet fuel, gas oil, fuel oil, butane, carbon dioxide, and liquified petroleum gas. The two large tanks existed at the site as early as 1945, prior to Powerine use of the tanks.

4. In March 1984, Powerine sought Chapter 11 bankruptcy protection and shut down the refinery. In September, 1986, Powerine Oil Company emerged from bankruptcy. The refinery operated from 1986 until 1995 undergoing a series of ownership changes that ultimately resulted in a July, 1995 shutdown of their 49,500 barrel per day refining process and layoff of most of their 400 employees. During this time, Order No. 85-17 was adopted by this Regional Board directing Powerine Oil Company to conduct a subsurface investigation of their Refinery and to detect and assess any conditions of soil and ground water pollution which may be present. This Order provides that additional Orders shall be issued to correct any condition of pollution found. In response to this Order, the Discharger: Investigated the extent of ground water contamination originating from the

refinery and initiated some soil cleanup and operation of a free-phase petroleum hydrocarbon product removal system. In 1991, free-phase hydrocarbon removal was suspended due to the unrecoverability of the remaining free-phase petroleum hydrocarbon on the ground water. Little free-phase petroleum hydrocarbon contamination remains but extensive dissolved-phase contamination remain on-site and off-site, including under the State Hospital to the south. In early 1996 the Energy Merchant Corporation acquired Powerine with the intent of restarting the refinery and reestablishing Powerine in the petroleum refining business. Powerine stated that the sale of its former administrative building and terminalling facility property located at 12354 Lakeland Road, is key to the financing of the proposed refinery start-up. To facilitate this sale, on June 24, 1997, Powerine requested that this Regional Board enter into a Prospective Purchaser Agreement covering only the Lakeland Road portion of their refinery property.

5. Prior to their request for a Prospective Purchaser Agreement, Powerine initiated shallow soil remediation on the Lakeland Property and requested a no further action letter to facilitate the sale of the land. This remediation action consisted of demolition of the above ground tanks and associated pipelines at the Lakeland Property and removal of about 5,100 cubic yards of petroleum hydrocarbon saturated soils for staging prior to treatment or off-site disposal.

6. After Powerine's remediation efforts, on May 14, 1997, staff issued a "No Further Action" letter regarding soil contamination which provided that reasonable precautions are to be taken by those involved in any excavation, borings or related activities involving the subsurface of the subject site. This no further action letter was based upon:

   a. Shallow soils meet the Board's cleanup goals for low risk sites. Deeper soil contamination remaining contain up to 27,000 mg/kg total petroleum hydrocarbon (TPH) as gasoline, up to 3.3 mg/kg methyl tertiary butyl ether (MTBE), 200 mg/kg benzene and up to 110 mg/kg naphthalene and pose no risk to surface development.

   b. A "Fate and Transport/Human Health Risk Assessment", dated March 21, 1997, and update of May 12, 1997, indicate that remaining site soil contaminants will not impact the ground water, the incremental cancer risk was predicted to be less than 0.5 in one million for a site industrial worker, and the non-carcinogenic hazard index was predicted to be less than 0.013.

   c. Existing ground water contamination with up to 14,000 mg/ℓ benzene was deferred from the no further action letter for later cleanup under the refinery cleanup and abatement Order. Analyses for three on-site production wells, screened in the Silverado aquifer, were below detection limits for all constituents except for 0.88 µg/ℓ toluene in production well number 6, which appeared to be an anomaly.

7. The refinery is underlain by several water-bearing zones. The uppermost water-bearing zone is the unconfined Artesia aquifer. The depth to ground water underlying the refinery is generally 80 feet to 100 feet below ground surface (bgs). Ground water flow direction is generally south in the vicinity of the refinery with an apparent ground water divide about one mile south of the refinery. A deeper probable water-bearing zone at about 200 feet to 400 feet bgs located in the Lynwood formation and a water bearing zone at about 600 to 800 feet bgs called the Silverado aquifer, is a drinking water source for the area.

8. Ground water production wells, screened in the Silverado aquifer, within four miles of the refinery supply drinking water for approximately 114,000 people, supplied by five water purveyors.

9. Free-floating hydrocarbon product was identified in the Artesia aquifer underlying the refinery and is known to have migrated off-site in this aquifer. The discharger initiated recovery of free floating hydrocarbon from the Artesia aquifer in the summer of 1990. As of March 1995, about 520 gallons of hydrocarbon have been recovered from the Artesia aquifer and the maximum hydrocarbon thickness has been reduced to from 2.96 feet to 0.3 feet.

10. The U.S. EPA conducted a Site Inspection Prioritization (SIP) of the refinery and prepared a report, dated September 11, 1995. This report indicated that further assessment is needed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the Regional Board is the lead agency for this site and that EPA will continue to monitor the sites progress.

11. The Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 13, 1994. This Water Quality Control Plan designates beneficial uses and establishes water quality objectives for all ground water within the Region. Existing or potential beneficial uses for ground water in the Coastal Plain, where the site is located, are municipal and domestic supply, agricultural supply, and industrial service and process supply. Ground water in the Silverado aquifer is usually of best quality and quantity.

12. The California Water Code, Section 13304, "Cleanup and Abatement Orders", requires in part, that any discharge of waste into the waters of the state, that creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the Regional Board cleanup such waste or abate the effects thereof. If such waste is cleaned up, the effects thereof abated, the person or persons who discharged the waste, shall be liable to that governmental agency [for its supervision] to the extent of the reasonable costs actually incurred in cleaning up such waste and abating the effects thereof.

13. Additionally, under the Aboveground Tank Act (SB 1050), the discharger is required to reimburse the State of California for staff oversight costs associated with cleanup and abatement activities. To that end, the discharger, via a letter dated March 11, 1993, agreed to reimburse the State of California for staff oversight costs associated with cleanup activities at this facility.

14. This enforcement action is being taken for the protection of the environment and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) in accordance with Section 15321, Chapter 3, Title 14, California Code of Regulations.

The Regional Board has notified the discharger of its intent to issue an Order requiring it to cleanup and abate conditions of soil and ground water pollution caused by the release of petroleum hydrocarbon products from their properties and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the tentative Order.

IT IS HEREBY ORDERED, pursuant to California Water Code 13304, that Powerine Oil Company shall:

1. Cleanup and abate the effects of on-site and off-site soil and ground water contamination originating from its refinery, including its Bloomfield Property, activities associated with two above ground storage tanks on the "Walker Property" located at 11240 Bloomfield Avenue, and its interconnecting pipelines to its former Marine Terminal, located at Berth 73 in the Port of Long Beach, Long Beach, California. In addition, cleanup and abate the effects of on-site and off-site ground water contamination which may have originated from its Lakeland Property, as required by this Regional Board.

2. Submit to this Regional Board by March 15, 1998, a Master Work Plan and time schedule for approval by the Executive Officer, that details all known on-site and off-site ground water and soil contaminated areas for cleanup. The Master Work Plan shall provide a time schedule for cleanup of all detailed ground water and soil contamination. These activities shall be conducted according to approved work plans, the requirements of the State Water Resources Control Board Resolution No. 92-49 "Policies and Procedure", and the time schedule specified in the Master Work Plan. The Master Work Plan shall include at a minimum the following items:

   a. An updated refinery source identification and elimination plan including a plan and time schedule for implementation of the site source identification and elimination program within 90 days of approval of the plan by the Executive Officer. The plan is to detect leakage from above ground tanks and associated piping, identify free phase petroleum hydrocarbon in the vadose zone, and remediate any petroleum hydrocarbon contamination in a timely manner.

   b. A plan and schedule for final site assessment of all soil and ground water contamination to:

      1) Fully delineate the extent of free-phase and dissolved phase ground water contamination in the upper saturated zone and underlying saturated zones. Off-site investigations coordinated to include neighboring facilities are

considered a vital part of this effort. Complete the preliminary investigation and characterization of all known on-site vadose zone contamination. Define the lateral and vertical extent of such contamination, characterize and evaluate contaminant behavior, and evaluate the potential impact on ground water quality.

2) Develop specific aquifer characteristics, such as hydraulic conductivity, for the uppermost saturated zone and any underlying contaminated aquifers;

3) Assess the saturated zone hydraulic characteristics and conductivity (i.e., determine the connection between saturated units or aquitards underlying any soil or ground water contamination).

c. A description of the current facility ground water cleanup strategy to remediate any on-site and off-site free-phase and dissolved phase ground water contamination.

d. A schedule for initiating cleanup of all known ground water contamination.

e. A schedule for initiating cleanup of all known vadose zone contamination. Cleanup levels shall be approved in Waste Discharge Requirements issued by this Regional Board.

3. After completion of any phase of ground water or soil investigation or cleanup, according to the approved time schedule in the Master Work Plan, a detailed report describing the activities and results shall be submitted to this Regional Board. Semi-annual progress reports shall be submitted until all required activities are completed.

4. Pursuant to Section 13267 of the Water Code, the discharger shall submit, under penalty of perjury, to this Regional Board technical reports to include semi-annual progress and ground water elevation gauging and sampling reports until completion of all Regional Board mandated work. These reports must contain, at a minimum, the following information:

a. A summary of all ground water elevation measurements from mean sea level and depths to ground water from all site monitoring wells. Monitoring wells should be sounded for total depth at each gauging event. This information should be presented in tabular form to include well location (latitude/longitude or x/y coordinate system) and on a plot plan depicting the location of the borings/wells with ground water contours depicting groundwater flow direction and gradient information. Also, include a free phase hydrocarbon isothickness map and a dissolved phase contaminant isoconcentration contour map, if applicable.

b. Analyses of ground water collected from selected site monitoring wells during the sampling period, as approved by the Executive Officer, together with an evaluation

of the test results. Ground water sample collection procedures and analyses shall be according to an approved work plan.

c. The above data shall be submitted by hard-copy in a report and if requested, electronically in a format acceptable to the Executive Officer.

d. Investigative and remedial activities completed during the reporting period and activities proposed for the next reporting period.

5. Any request for time extensions of the completion dates, shown in the approved Master Work Plan, must include justification for such time extension and be submitted in writing to the Executive Officer for approval.

6. Abandonment of any ground water well(s) at the site must be reported to the Executive Officer in advance when possible, but no later than 14 days after removal. Any ground water well removed must be replaced within a reasonable time, at a location approved by the Executive Officer. With justification, the Executive Officer may approve of the abandonment of ground water wells without replacement. When a well is removed, all work shall be completed in accordance with all applicable well abandonment requirements.

7. All work, except the source elimination program, performed pursuant to this Order shall be under the direction and supervision of a registered Civil Engineer or Geologist or a Certified Engineering Geologist. The Discharger's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which they are responsible.

8. When required, it is the intent of this Regional Board to issue Waste Discharge Requirements or other Orders pursuant to Section 13260, Section 13304, and/or Section 13350 of the Water Code to facilitate this cleanup and abatement activity.

9. The Regional Board and other Regional Board authorized representative shall be allowed:

a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

b. Access to copy any records that are kept under the conditions of this order;

c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this order; and

d. To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the California Water Code.

10. Any investigation and cleanup and mitigation activities required by this Order, currently in progress or conducted in the past, shall be included and made a part of the cleanup program.

11. This Order is not intended to permit or allow the discharger to cease any work required by any other Order issued by this Regional Board, nor shall it be used as a reason to stop or redirect any investigation or mitigation activities not required by this Order or any other agency.

12. This Order in no way limits the authority of the Regional Board as contained in the California Water Code, to require additional investigation and cleanup pertinent to this project. It is the intent of this Regional Board to issue Waste Discharge Requirements or other Orders pursuant to Section 13260, Section 13304, and/or Section 13350 of the Water Code when appropriate to facilitate this cleanup and abatement activity. Additionally, continued monitoring of the ground water quality beneath this facility after the completion of this cleanup and abatement activity may be required.

13. Provide to the Regional Board advance notice of any planned physical alterations to the facility or planned changes in the facility's activities that may affect compliance with this Order.

14. This Order does not exempt the discharger from compliance with any other laws, regulations, or ordinances which may be applicable, nor does it legalize these waste treatment and disposal facilities and it leaves unaffected any further restraints on those facilities which may be contained in other statues or required by other agencies.

15. Provide to the Regional Board advance notice of any planned change in name, ownership, or control of the facility; provide notice to any succeeding owner or operator of the existence of this Order by letter; forward a copy of such notification to the Regional Board.

16. Pursuant to Section 13304 of the Water Code, the discharger shall reimburse the State Water Resources Control Board (SWRCB) for all reasonable costs incurred by the State Board and this Regional Board in overseeing the cleanup and abatement activities required by this order.

17. This order may be revised by the Regional Board through its Executive Officer as additional information on this site becomes available. Upon request by the discharger, and for good cause shown the Executive Officer may defer, delete or extend the date of compliance for any action required of the discharger under this Order. The authority of the Regional Board, as contained in the California Water code, to order investigation and cleanup additional to that described herein, is in no way limited by this Order.

Failure to comply with the terms or conditions of this Order may result in the imposition of civil liabilities, either administratively by the Regional Board or judicially by the Superior Court, in accordance with Section 13350, et seq., of the California Water Code, and/or referral to the Attorney General of the State of California for such action as he may deem appropriate.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on August 25, 1997.

Dennis A. Dickerson

DENNIS A. DICKERSON
Executive Officer

Administrative Record
No. 2

Slic # 03184

Pc

City of Santa Fe Springs

Headquarters Fire Station

11300 Greenstone Ave. • CA • 90670-4619 • (562) 944-9713 • Fax (562) 941-1817 • www.santafesprings.org

October 25, 2001

2001 OCT 26 P 2:17

Mr. Dennis A. Dickerson
Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, California 90013

SUBJECT: Soil Gas Related Problems in the Vicinity of the Powerine/CENCO Refinery, Santa Fe Springs, California

Dear Mr. Dickerson:

Enclosed is a soil gas report that contains findings related to property at 11224 S. Norwalk Boulevard. The property is located southwest of the refinery formerly operated by Powerine, and now owned by CENCO Refining Company ("CENCO"). The consulting engineer responsible for the soil gas report, Alaska Petroleum, has included information that strongly suggests that contamination emanating from CENCO is responsible for high levels of soil gas found on properties southwest of the refinery.

Alaska Petroleum transmitted the report to the City of Santa Fe Springs as part of an on going series of soil gas reports mandated by the Municipal Code. Other properties in the vicinity of CENCO are also required to produce soil gas reports, and have reported similar findings and arrived at similar conclusions. In the cover letter transmitting the report to the City, Alaska requested that Santa Fe Springs take steps that would require CENCO to conduct a remedial investigation of the problem including implementing soil vapor studies and remedial activities to rectify the elevated methane concentrations detected on all impacted properties.

It is clear from the report that there are very high levels of methane and other soil gases in the area. For example, concentrations of methane have been detected up to 28% (280,000 parts per million [ppm]) and gasoline vapors up to 20,200 ppm in some locations. Because your department is the lead agency for this site and the Regional Water Quality Control Board issued a Cleanup and Abatement Order to Powerine in the past (with CENCO now the responsible party), I believe that the off-site impact of contamination emanating from the refinery is best addressed by your agency. It is therefore requested that your office take the actions necessary to deal with this apparent problem.

Thank you for your attention to this request. If you have any questions or need additional information, please do not hesitate to call me at 562.944.9715

Sincerely,

Neal Welland

Neal Welland
Fire Chief

CC: Frederick W. Latham, City Manager
Robert Orpin, Director of Planning and Development
Susan Bergeron-Vance, Director of Finance and Administrative Services
John Price, Director of Public Works
Andrew C. Lazzaretto, Redevelopment Consultant

Administrative Record
No. 3

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

November 5, 2001

via U.S. Mail

CENCO Refining Company
Post Office Box 2108
Santa Fe Springs, CA 90670-3857

Attn: June M. Christman

Re: Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

Dear Ms. Christman:

Pursuant to the request from Paul Cho - California Regional Water Quality Control Board (RWQCB), attached herewith are the following documents:

1. *Alaska Petroleum Environmental Engineering, Inc.*, "Soil Gas Investigation Report, Second and Third Quarter 2001 (7th and 8th Sampling Event)", September 2001.

2. City of Santa Fe Springs, "Soil Gas Related Problems in the Vicinity of the Powerine/CENCO Refinery, Santa Fe Springs, California", October 25, 2001.

Extremely elevated concentrations of gases have been detected in the methane monitoring wells at the adjacent properties to the south of the refinery. Our engineering evaluation is that the gases are due to contamination originating from the former Powerine Refinery.

Alaska Office
907-479-9555
P.O. Box 81904
Fairbanks, Alaska 99708

California Office
714-897-2733
FAX 714-897-0031
P.O. Box 5365
Garden Grove, CA 92846

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

Closing Remarks

Please forward your response to this issue to my attention, and I will distribute it to all concerned parties. If you have any questions regarding the contents of these documents, please do not hesitate to contact me at extension 207.

Cordially,

R. Glenn Stillman
Principal Engineer

RGS/kae

c: all w/o report, w/Fire Department letter except City/RWQCB

Ira Levin, Esq. – Senior Vice President/General Counsel, Robertson Properties Group
Sabrina Sinser, Esq. – Robertson Properties Group
Mark A. Miller - Director of Real Estate, Robertson Properties Group
Joel S. Moskowitz, Esq. - Moskowitz, Brestoff, Winston & Blinderman, LLP
Neal Welland - Fire Chief, City of Santa Fe Springs
Andrew C. Lazzaretto - Redevelopment Consultant, City of Santa Fe Springs
Paul Cho – RWQCB
Rick Hedrick – The Carson Companies
Bill Coleman – Metropolitan State Hospital, Health & Safety Department, Health & Safety Officer
Jeffrey P. Johnson – Los Angeles Real Estate Group, Well Fargo Bank
Michael Kaplan – Performance Team Freight

Administrative Record
No. 4

California Re onal Water Quality C ntrol Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

December 17, 2001

Ms. June Christman
CENCO Refining Company
P.O. Box 2108
Santa Fe Springs, CA 90670

REQUEST FOR REDUCTION IN GROUNDWATER MONITORING - CENCO REFINERY, 12345 LAKELAND ROAD, SANTA FE SPRINGS (SLIC No. 318A)

Dear Ms. Christman:

Reference is made to the November 12, 2001, *Request for Reduction in Groundwater Monitoring of the Cenco Refining Company*, that Versar Inc. prepared on your behalf. In order to consider your request, we need the following additional information:

1. In the request report, it was stated that the plume of petroleum hydrocarbons and associated aromatic hydrocarbons and oxygenates are stable based on two years of groundwater monitoring at the subject site. Please prepare maps showing each plume boundary over time to demonstrate that the plumes are stable. If there were more than one aquifer involved, prepare a map for each aquifer. Monitoring wells currently sampled should be plotted on this map.

2. If analytical data shows decreasing trend as stated, please prepare a table listing chemical compounds you want to monitor annually with their concentration levels showing decreasing trend over time for each monitoring well.

3. Please prepare a table listing all monitoring wells currently sampled and chemical compounds analyzed for each well.

4. We may consider the following chemical list from U.S. EPA as constituents of concern (COCs) for this region's oil refineries and require monitoring to establish a baseline at each refinery. Please review your previous investigation and make sure you have information on this COCs.

   Skinner List (out of U.S. EPA delisting guidance):

   Metals : Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Lead, Mercury, Nickel, Selenium, Vanadium

   Volatiles: Benzene, Carbon disulfide, Chlorobenzene, Chloroform, 1,2-Dichloroethane, 1,4-Dioxane, Ethyl benzene, Ethylene dibromide, Methyl ethyl ketone, Styrene, Toluene, Xylene

Semivolatile Base/Neutral Extractable Compounds : Anthracene, Benzo (a) anthracene, Benzo (b) fluoranthene, Benzo (k) fluoranthene, Benzo (a) pyrene, Bis (2-ethylhexyl) phthalate, Butyl benzyl phthalate, Chrysene, Dibenz (a, h) acridine, Dibenz (a,h) anthracene, Dichlorobenzenes, Diethyl phthalate, 7,12-Dimethylbenz (a) anthracene, Dimethyl phthalate, Di (n) butyl phthalate, Di (n) octyl phthalate, Fluoranthene, Indene, Methyl chrysene, 1-Methyl naphthalene, Naphthalene, Phenanthrene, Pyrene, Pyridine, Quinoline

Semivolatile Acid-Extractable Compounds : Benzenethiol, Cresols, 2,4-Dimethylphenol, 2,4-Dinitrophenol, 4-Nitrophenol, Phenol

5. Please update the status of a supplemental soil investigation, preparation of a remedial action plan for soil and groundwater, and preparation and implementation of the human health risk assessment workplan as mentioned in your April 27, 2001, Technical Report.

Your April 27, 2001, Technical Report is being reviewed in conjunction with our process for developing this Regional Board's consistent approach toward environmental protection at oil refineries including future monitoring requirements. The above requested information is also necessary to complete our review of your technical report. If the plume is stable and not expanding over time, as stated in your request report, you may implement annual groundwater monitoring program after our approval. You are required to submit the above information to this Regional Board by **January 31, 2002.**

If you have any questions, please call me at (213) 576-6721.

Sincerely,

Paul K. Cho
Associate Engineering Geologist
Site Cleanup Unit II

cc: David Klunk, City of Santa Fe Springs, Headquarters Fire Station
Eliana Marhlouf, Versar Inc.

Administrative Record
No. 5

CENCO Refining Company

12345 Lakeland Road P.O. Box 2108 Santa Fe Springs, CA 90670-0180 (562) 944-6111 Fax (562) 903-8911

January 31, 2002

Mr. Paul Cho
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Request For Reduction in Groundwater Monitoring—CENCO Refining Company, CI File No. 6154 CA0057177

Dear Paul,

CENCO received your December 17, 2001 letter, which requests additional information to assist you in revising the groundwater monitoring program. CENCO requests an extension of time to prepare and submit this information.

Per our telephone conversation today, a two-week extension would be acceptable. Thus we will respond to your request by Monday, February 18.

Thank you for your patience. Should you need additional information, please feel free to contact me.

Sincerely,

June Christman
Environmental Engineering Manager

RWQCB-045

Administrative Record
No. 6

MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP*

1880 Century Park East, Suite 350, Los Angeles, California 90067
TEL: (310) 373-9790 FAX: (310) 373-2915 E-MAIL: jsm6@ix.netcom.com

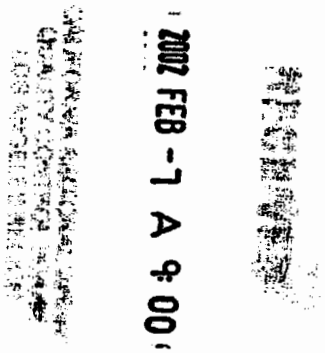
Joel S. Moskowitz
DIRECT TEL: (310) 318-9528

Barbara S. Blinderman
Nelson E. Brestoff
Dennis A. Winston

February 6, 2002

VIA FEDERAL EXPRESS

Dennis Dickerson
Executive Officer
California Regional Water Quality Control Board
– Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013



Re: Request for Regional Board Action –
CENCO Refinery, Santa Fe Springs

Dear Mr. Dickerson:

I represent PDC Norwalk, LLC, a Delaware limited liability company, the owner of property located at 11224 South Norwalk Boulevard, in Santa Fe Springs. This property is located southwest of the former Powerine refinery, which property is now owned by CENCO Refining Company ("CENCO").

On October 25, 2001 the Fire Chief of the City of Santa Fe Springs, Neal Welland, transmitted to you a soil gas report prepared by my client's consultant, Alaska Petroleum Environmental Engineering. That report showed that high levels of explosive gases (up to 28% methane and 20,200 ppm of gasoline vapors) had migrated from the refinery property to my client's property. Other reports referenced therein show that this migration has similarly impacted other neighboring facilities, including those owned by the Carson Company and the State Hospital. The most recent samples show that methane has increased to 34% by volume, in increase of 6%.

As I am certain you appreciate, this situation presents a grave and imminent danger to these properties and to their occupants. These gases present more than calculable toxicity and carcinogenicity; they are present at well above their lower explosive limits and can literally blow up on these properties if they encounter any source of ignition.

The Fire Chief requested that the Regional Board take action to require CENCO to investigate this situation and take remedial action to abate this danger. It appears, however, that your agency has not yet taken such action in the intervening three months.

This is a further and formal request that the Regional Board require CENCO to conduct a remedial investigation of the migration of methane and gasoline vapors from its facility, including soil vapor studies, and thereafter take remedial action to alleviate these concentrations of gases and their continued migration.

Your agency should not require further encouragement to protect the public from this obvious danger, particularly when requested to do so by a City Fire Chief. However, following the expiration of 60 days of the date of your receipt of this letter or your expressed refusal to take the requested action, Pacific Theatres will petition the State Water Resources Control Board pursuant to Water Code Section 13320 to review the failure of your agency to respond to this situation.

Please direct all correspondence relating to this communication to me, with copies to the owner's property management group as follows:

Mark Miller
Robertson Properties Group
120 North Robertson Boulevard
Los Angeles, CA 90048

and

Sabrina Burton (nee Sinser)
Robertson Properties Group
120 North Robertson Boulevard
Los Angeles, CA 90048

Pursuant to the California Public Records Act, please transmit to me all future communications to or from CENCO relating to the above-referenced gas migration. Thank you for your anticipated assistance and cooperation.

Sincerely yours,

Joel S. Moskowitz

nrh:JSM

Administrative Record
No. 7

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

February 8, 2002

Ms. June Christman
CENCO Refining Company
P.O. Box 2108
Santa Fe Springs, CA 90670

Certified Mail
Return Receipt Requested
Claim No. 7000 0600 0028 7445 5231

SOIL GAS REMEDIATION AND TECHNICAL REPORTS (IMMEDIATE RESPONSE REQUIRED) FOR CENCO REFINERY, 12345 LAKELAND ROAD, SANTA FE SPRINGS CLEANUP AND ABATEMENT ORDER NO. 97-118 (SLIC No. 318A)

Dear Ms. Christman:

We have received a February 6, 2002 letter (copy attached) prepared by Mr. Joel S. Moskowitz of Moskowitz, Brestoff, Winston & Blinderman LLP, regarding soil gas related problems at a site now owned by CENCO Refining Company ("CENCO") and located at 11224 S. Norwalk Bvld. in Santa Fe Springs, California. Mr. Moskowitz claims that high levels of explosive gases are migrating off-site from your refinery onto properties located southwest of the refinery. Regional Board staff discussed this matter with you after we received an October 25, 2001 letter (copy attached) from Mr. Neal Welland, the Fire Chief of Santa Fe Springs.

The consulting firm, Alaska Petroleum Environmental Engineering ("Alaska Petroleum"), collected soil gas samples near the vicinity of CENCO. Pursuant to our request, the Alaska Petroleum's soil gas investigation report, dated November 2001, was forwarded to CENCO. This report states that concentrations of methane have been detected up to 28% (280,000 parts per million or ppm) and gasoline vapors up to 20,200 ppm in the same locations. According to the October 25, 2001 letter, other properties in the vicinity of CENCO have reported similar findings and arrived at similar conclusions.

In your January 31, 2002 letter, you stated that CENCO would submit additional site information, including a health risk assessment to this Regional Board by **February 18, 2002.** However, it is not clear whether an investigation has already been performed by CENCO to assess the high levels of soil gases.

Therefore, based upon the findings reported to this Regional Board by the Fire Chief of Santa Fe Springs and in the Alaska Petroleum soil gas report, CENCO is required, pursuant to section 13267 of the California Water Code and Cleanup and Abatement Order (CAO) No. 97-118 (issued on August 25, 1997 for the subject site), to **immediately begin remediation (and implement your emergency response plan to protect public safety)** of the high levels of soil gas contaminants (i.e., gasoline vapors, volatile organic compounds [VOCs], methane, etc.) in the unsaturated zone at CENCO. CENCO shall coordinate these remedial activities with the Sante Fe Springs Fire Department, South Coast Air Quality Management District (SCAQMD), Department of Toxic Substances Control and Regional Board staff. A status report regarding the remediation of the on-site soil gases shall be submitted to this Regional Board by **February 15, 2002.**

In addition, pursuant to CAO No. 97-118, you are hereby directed to submit a workplan to evaluate the impacts of the free product and its associated soil gases, VOCs and methane on site occupants and the residents who are living in the vicinity (adjoining properties, especially southwest of the refinery) of CENCO. This workplan shall include an ambient air quality evaluation and monitoring plan. Indoor and outdoor air samples shall be collected and analyzed for chemicals of concern in accordance with the protocols and requirements specified by the USEPA and SCAQMD. This workplan shall be submitted to this Regional Board by **February 18, 2002.**

Pursuant to section 13268 of the California Water Code, failure to submit the required reports or technical workplans by the due dates may result in civil liability penalties administratively imposed upon you by the Regional Board in an amount up to one thousand dollars ($1,000) for each day the report or workplan is not received.

Should you have any questions, please contact Mr. John Geroch at (213) 576-6737 or Mr. Paul Cho at (213) 576-6721.

Sincerely,

Dennis A. Dickerson
Executive Officer

cc: Robert Sams, Office of the Chief Counsel, State Water Resources Control Board
Michael Lauffer, Office of the Chief Counsel, State Water Resources Control Board
Sayaren Amir, Department of Toxic Substances Control
Larry Bowen, SCAQMD, Manager of Air Toxic Unit
Neil Welland, City of Santa Fe Springs, Headquarters Fire Station
Frederick Latham, City Manager, City of Santa Fe Springs
Joel Moskowitz, Moskowitz, Brestoff, Winston & Blinderman LLP

Attachments

MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP*

1880 Century Park East, Suite 350, Los Angeles, California 90067
TEL: (310) 373-9790 FAX: (310) 373-2915 E-MAIL: jsm6@ix.netcom.com

Joel S. Moskowitz
DIRECT TEL: (310) 318-9528

Barbara S. Blinderman
Nelson E. Brestoff
Dennis A. Winston

February 6, 2002

VIA FEDERAL EXPRESS

Dennis Dickerson
Executive Officer
California Regional Water Quality Control Board
– Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Re: Request for Regional Board Action – CENCO Refinery, Santa Fe Springs

Dear Mr. Dickerson:

I represent PDC Norwalk, LLC, a Delaware limited liability company, the owner of property located at 11224 South Norwalk Boulevard, in Santa Fe Springs. This property is located southwest of the former Powerine refinery, which property is now owned by CENCO Refining Company ("CENCO").

On October 25, 2001 the Fire Chief of the City of Santa Fe Springs, Neal Welland, transmitted to you a soil gas report prepared by my client's consultant, Alaska Petroleum Environmental Engineering. That report showed that high levels of explosive gases (up to 28% methane and 20,200 ppm of gasoline vapors) had migrated from the refinery property to my client's property. Other reports referenced therein show that this migration has similarly impacted other neighboring facilities, including those owned by the Carson Company and the State Hospital. The most recent samples show that methane has increased to 34% by volume, in increase of 6%.

As I am certain you appreciate, this situation presents a grave and imminent danger to these properties and to their occupants. These gases present more than calculable toxicity and carcinogenicity; they are present at well above their lower explosive limits and can literally blow up on these properties if they encounter any source of ignition.

The Fire Chief requested that the Regional Board take action to require CENCO to investigate this situation and take remedial action to abate this danger. It appears, however, that your agency has not yet taken such action in the intervening three months.

This is a further and formal request that the Regional Board require CENCO to conduct a remedial investigation of the migration of methane and gasoline vapors from its facility, including soil vapor studies, and thereafter take remedial action to alleviate these concentrations of gases and their continued migration.

Your agency should not require further encouragement to protect the public from this obvious danger, particularly when requested to do so by a City Fire Chief. However, following the expiration of 60 days of the date of your receipt of this letter or your expressed refusal to take the requested action, Pacific Theatres will petition the State Water Resources Control Board pursuant to Water Code Section 13320 to review the failure of your agency to respond to this situation.

Please direct all correspondence relating to this communication to me, with copies to the owner's property management group as follows:

Mark Miller
Robertson Properties Group
120 North Robertson Boulevard
Los Angeles, CA 90048

and

Sabrina Burton (nee Sinser)
Robertson Properties Group
120 North Robertson Boulevard
Los Angeles, CA 90048

Pursuant to the California Public Records Act, please transmit to me all future communications to or from CENCO relating to the above-referenced gas migration. Thank you for your anticipated assistance and cooperation.

Sincerely yours,

Joel S. Moskowitz

nrh:JSM

SLIC # 03184

PC

City of Santa Fe Springs

Headquarters Fire Station

11300 Greenstone Ave. • CA • 90670-4619 • (562) 944-9713 • Fax (562) 941-1817 • www.santafesprings.org

October 25, 2001

2001 OCT 26 P 2:17

Mr. Dennis A. Dickerson
Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, California 90013

SUBJECT: Soil Gas Related Problems in the Vicinity of the Powerine/CENCO Refinery, Santa Fe Springs, California

Dear Mr. Dickerson:

Enclosed is a soil gas report that contains findings related to property at 11224 S. Norwalk Boulevard. The property is located southwest of the refinery formerly operated by Powerine, and now owned by CENCO Refining Company ("CENCO"). The consulting engineer responsible for the soil gas report, Alaska Petroleum, has included information that strongly suggests that contamination emanating from CENCO is responsible for high levels of soil gas found on properties southwest of the refinery.

Alaska Petroleum transmitted the report to the City of Santa Fe Springs as part of an on going series of soil gas reports mandated by the Municipal Code. Other properties in the vicinity of CENCO are also required to produce soil gas reports, and have reported similar findings and arrived at similar conclusions. In the cover letter transmitting the report to the City, Alaska requested that Santa Fe Springs take steps that would require CENCO to conduct a remedial investigation of the problem including implementing soil vapor studies and remedial activities to rectify the elevated methane concentrations detected on all impacted properties.

It is clear from the report that there are very high levels of methane and other soil gases in the area. For example, concentrations of methane have been detected up to 28% (280,000 parts per million [ppm]) and gasoline vapors up to 20,200 ppm in some locations. Because your department is the lead agency for this site and the Regional Water Quality Control Board issued a Cleanup and Abatement Order to Powerine in the past (with CENCO now the responsible party), I believe that the off-site impact of contamination emanating from the refinery is best addressed by your agency. It is therefore requested that your office take the actions necessary to deal with this apparent problem.

Thank you for your attention to this request. If you have any questions or need additional information, please do not hesitate to call me at 562.944.9715

Sincerely,

Neal Welland

Neal Welland
Fire Chief

7000 0600 0028 7445 5231

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[illegible] CA 90670

PS Form 3800, February 2000 — See Reverse for Instructions

PC – Cenco Refon[illegible]
SLIC #318A

FEB 08 2002

Administrative Record
Nos. 8 & 9

City of Santa Fe Springs

Headquarters Fire Station

11300 Greenstone Ave. • CA • 90670-4619 • (562) 944-9713 • Fax (562) 941-1817 • www.santafesprings.org

February 13, 2002

Mr. Dennis A. Dickerson
Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

SUBJECT: Soil Gas Related Problems at 11224 S. Norwalk Blvd., Santa Fe Springs

Dear Mr. Dickerson,

Thank you for taking your time to meet with Dave Klunk, Tom Hall and myself on Friday afternoon. It was a pleasure to meet you and talk with you. As you remember, we discussed the matter of the soil gas report for the property located at 11224 S. Norwalk Blvd. in Santa Fe Springs. The report was compiled by Alaska Petroleum Environmental Engineering ("Alaska Petroleum") and reviewed by Mr. Andy Lazzaretto, a consultant for the City of Santa Fe Springs. After reviewing the report, he called me and recommended that the report be forwarded to the RWQCB. I sent that report to you with a letter dated October 25, 2001. The Santa Fe Springs Fire Department did not review the report other than to note that there were high concentrations of methane reported.

After our meeting today, we went back to the property located at 11224 S. Norwalk and took gas readings with a combustible gas indicator (CGI) calibrated to methane. We took several samples from the planter areas next to the building, water meter boxes, and cracks in the asphalt driveway. Our sampling did not indicate there is any danger from explosive levels of methane in the area. Each area we sampled indicated "0" reading on the meter. We will occasionally check the area with a CGI to reassure ourselves that the methane problem does not become dangerous. We will notify you immediately if we find any indication of methane gas at 10% LEL or greater.

If there is any further information you need, please call me at 562.944.9713.

Sincerely,

Neal Welland

Neal Welland
Fire Chief

Administrative Record
No. 10

ISOLA ◆ BOWERS, LLP
ATTORNEYS AT LAW

SECOND FLOOR
701 SOUTH HAM LANE
LODI, CALIFORNIA 95242
TELEPHONE (209) 367-7055
FACSIMILE (209) 367-7056

February 13, 2002

Via Facsimile and Certified Mail

Mr. Dennis A. Dickerson
Executive Officer
REGIONAL WATER QUALITY
CONTROL BOARD-LOS ANGLELSE REGION
320 West 4th Street, Suite 200
Los Angeles, California 90013

Joel S. Moskowitz, Esq.
MOSKOWITZ, BRESTOFF,
WINSTON & BLINDERMAN LLP
1880 Century Park East, Suite 350
Los Angeles, California 90067

Re: Pacific Distribution Center
1224 South Norwalk Boulevard, Santa Fe Springs

Dear Gentlemen:

This office represents CENCO Refining Company ("CENCO") with respect to the matters addressed in Mr. Dickerson's February 8, 2002, correspondence, and in Mr. Moskowitz's correspondence of February 6, 2002.

Preliminarily, please be advised that CENCO fully intends to timely and appropriately respond to the demands made in Mr. Dickerson's correspondence. To this end, CENCO has scheduled a meeting for 1:00 p.m. on February 14, 2002, with California Regional Water Quality Control Board-Los Angeles Region ("RWQCB") Assistant Executive Officer Arthur Heath. Also, I will be contacting Mr. Moskowitz shortly to discuss these issues, and to pledge CENCO's commitment to embarking upon a mutually cooperative working relationship with Robertson Properties.

Notwithstanding the foregoing commitments, we must note some level of concern with the factual and scientific foundation for the demands made in Mr. Moskowitz's letter, and the RWQCB's fulfillment of such demands two (2) days later. Given the data generated to date regarding the plume and soil characteristics in the vicinity of the CENCO

refinery, attributing the methane levels reported by Alaska Petroleum Environmental Engineering exclusively to the CENCO plume is unwarranted.

CENCO has and continues to be in compliance with Cleanup and Abatement Order 97-118. For over four years, CENCO has conducted numerous soil and groundwater investigative activities, as well as mandatory bi-annual groundwater monitoring under the supervision of RWQCB staff, and has provided the results of such activities to RWQCB staff. With this background, CENCO is troubled by the rapidity with which the RWQCB has apparently concluded that CENCO is responsible for the subject methane issues, given that data supplied to RWQCB staff since 1997 under CAO 97-118, and dating back to 1985 under Cleanup and Abatement Order 85-17, does not support such a conclusion.

Moreover, we have supplied RWQCB staff with cumulative data identifying numerous other sources of soil and groundwater contamination (neither related to Powerine nor CENCO) in the immediate vicinity of the refinery, including but not limited to operations associated with the state mental hospital. Similarly, casing head gasoline pipelines (neither owned nor operated by Powerine) are known to have been present in this general vicinity. Any one of, or some combination of these other sources could be the cause of the subject methane issues.

Finally, CENCO was contacted on February 11, 2002, by John Geroch of the RWQCB inquiring whether CENCO intends to take emergency action. As stated above, CENCO will timely address the demands made in Mr. Dickerson's correspondence. However, to the extent emergency mitigative action is required for the protection of the public, the property owner, the RWQCB, the Department of Toxic Substances Control, and the City of Santa Fe Springs Fire Department is each better equipped than CENCO to take emergency mitigative action, and has the paramount duty to take such action.

Thank you for your attention to the foregoing, and please do not hesitate to contact me with any questions or comments.

Very truly yours,

DAVID R. ISOLA

DRI:mdr

cc: Robert Sams, Office of the Chief Counsel, SWRCB
Michael Lauffer, Office of the Chief Counsel, SWRCB
Sayaren Amir, Department of Toxic Substances Control

Administrative Record
No. 11

CENCO Refining Company

12345 Lakeland Road P.O. Box 2108 Santa Fe Springs, CA 90670-0180 (562) 944-6111 Fax (562) 903-8911

February 15, 2002

Mr. Arthur Heath
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Methane Near CENCO Refining, Santa Fe Springs

Dear Mr. Heath,

CENCO has been working with our hydrogeology consultant and the city to study the methane phenomena that was brought to our attention in November. As we discussed in our meeting Thursday, we have identified a few potential sources, such as the abandoned oil wells, decomposition of hydrocarbons, and a former landfill. We are working on a plan to narrow the possibilities so that we can focus on the source or sources.

In the mean time, there appears to be no imminent health or safety hazard at either the Coaster building or the Pacific Distribution Center facility. A field investigation by the fire department last week detected no flammable gases. Moreover, modeling by our hydrogeologist showed that the concentrations detected previously would not create a dangerous scenario. However we are responding to the situation, as directed by the letter from the executive officer.

We are preparing a plan to investigate the occurrence of methane, and will send it to you on the 19th, as we agreed. Thank you for meeting with us to discuss this. If you have any questions, please call me at (562) 906-2913.

Sincerely,

for June Christman
Environmental Engineering Manager

cc: Paul Cho
John Geroch

RWQCB-048

Administrative Record
No. 12

GROUND ZERO ANALYSIS, INC.

1714 Main Street
Escalon, California 95320-1927
Telephone: (209) 838-9888
Facsimile: (209) 838-9883

2002 FEB 19 P 2:50

February 15, 2002

Mr. Paul K. Cho
Mr. John Geroch
Los Angeles Regional Water Quality Control Board
320 W. Fourth St., Suite 200
Los Angeles, CA 90013

Subject: **WORKPLAN FOR CHARACTERIZATION OF VADOSE ZONE METHANE, CENCO REFINING CO., SANTA FE SPRINGS, CA (SLIC #318A)**

Dear Mr. Geroch:

This letter report presents a proposed workplan for assessing the source, extent and potential hazards associated with elevated levels of methane in soil gas in the vicinity of the CENCO Refinery in Santa Fe Springs.

The general scope of work will consist of ambient monitoring, evaluating all potential sources of methane in the affected area while simultaneously determining the area of impacts and developing a remedial response. The evaluation of the lateral extent of elevated methane levels in soil vapor will also include an ambient methane determination in and around buildings in the affected area.

BACKGROUND INFORMATION

Two properties located immediately south of the Cenco Refinery (Coaster and Pacific Distribution) have been monitoring methane in soil gas as part of their requirements under Santa Fe Springs City Ordinance 829 since 1999. Both properties lie within the "methane zone" of the City where the long history of petroleum industry activities has raised concerns about methane in the vadose zone.

Levels of methane above the lower explosive limit (LEL) were first observed in one of Pacific Distribution's 10 multi-depth-monitoring wells in 1999. Levels of methane above the LEL were first detected at the Coaster property in 3 of their 8 wells in July of 2000. These results and subsequent quarterly monitoring of all 18 wells was reported to the City of Santa Fe Springs Fire Department. Based upon the sampling, monthly ambient air testing was conducted by Coaster at joints/cracks/penetrations within the buildings to assess potential hazards and no methane was present

above the LEL. Similarly, at Pacific Distribution, ambient air sampling within the building at floor cold-joints, sewer cleanouts and utilities did not detect methane.

The lack of significant methane in the ambient air samples is consistent with preliminary vapor transport modeling we have performed using the Orange County Vapor Diffusion Model. The relatively high levels of methane detected at 5, 10 and 20 feet in some of the Coaster and Pacific Distribution wells do not translate into levels of concern at the surface, as demonstrated by the repeated ambient sampling events.

The source of the methane detected at the two facilities is unknown although there are a large number of potential sources. The consultant for Pacific Distribution (Alaska Petroleum Environmental Engineering) opined that the source of soil gases was apparently the Powerine Refinery, and that it was impacting a "regional area". By contrast, the consultant for Coaster concluded that the source was "most likely bacterial decomposition of biodegraded condensate or other crude oil by-product".

The Coaster building is located on the former "Lakeland Property" where Powerine Oil Company stored product and operated a loading rack. The Coaster property, the Pacific Distribution property and the grounds of the Norwalk State Hospital are all underlain by a hydrocarbon plume in groundwater that originated from a large spill at the Refinery. The potential for this plume to generate significant quantities of methane is possible but requires somewhat unusual conditions in the subsurface. A preliminary examination of the land use history in the immediate area indicates a number of other likely sources for the observed methane levels.

Notwithstanding the assertion by Alaska Petroleum Environmental that vapor contamination is impacting a regional area the majority of the wells sampled on the Pacific Distribution and Coaster properties did not have methane or other hydrocarbon vapors at elevated levels. The presence of vapor hot spots on the two properties separated by a large number of wells with low or non- detectable gas concentrations suggests point sources rather than regional contamination. Such point sources could include abandoned oil/gas wells, a known landfill on the Hospital grounds, collection or distribution pipelines and/or current or former underground storage tanks.

PROPOSED WORK PLAN

The investigation will be comprised of the following tasks:

Ambient Air Monitoring

Ambient air monitoring for methane and explosive gases will be conducted at the refinery property to assess potential health and explosion hazards. As with the ambient assessments at Coaster and Pacific Distribution, potential areas of accumulation and conduits between the subsurface and enclosed spaces will be the focus. Monitoring will be performed using a Gas Tech GT Land Surveyor methane gas detector and explosimeter. Sample locations and meter readings will be recorded in a logbook that will be kept on-site.

In addition to the field monitoring, the Orange County Environmental Health Division Vapor Diffusion Model will be used to estimate the potential flux of methane into enclosed spaces or buildings.

Soil Vapor Monitoring

The extent of methane and explosive gases in the area of the refinery will initially be assessed by monitoring the well head gases in all accessible CENCO monitoring wells. These wells, which were installed as part of the Refinery soil and groundwater investigation, are located on the CENCO property and on properties located to the south (downgradient) including the Coaster property and the State Hospital. Each well will be purged of one casing volume and a sample collected with in a Tedlar Bag. A field meter (Gas Tech GT) will be used to measure gas concentrations from the Tedlar Bags.

Soil Gas Source Evaluation

An evaluation of the source or sources of methane and other gases in the vadose zone will be undertaken using a combination of historical research, agency records review and air photo analysis. Specific potential sources that will be investigated will include:

- The former landfill on the State Hospital Grounds.
- The abandoned oil/gas wells on the Cenco, Coaster, Pacific Distribution and State Hospital properties.
- Active and abandoned collection and transportation pipelines under Lakeland Blvd.
- A former gas dryer on the Lakeland Property.
- UST's in the area of the area of the Lakeland Property.
- Methanogenesis related to fuel hydrocarbons in the vadose and saturated zones on and downgradient of the CENCO Refinery
- Production sumps and other potential methane sources associated with the historic petroleum activities and the "methane zone" in the City of Santa Fe Springs.

Gas Fingerprinting

Depending upon the results of the Source Evaluation, forensic gas samples may be analyzed from the wells on the Coaster and Pacific Distribution sites with the highest methane levels and compared to similar samples collected on the Refinery property and/or the State Hospital grounds. A State Certified laboratory will analyze the samples for C1-C7 hydrocarbons in order to assess chemical signatures, correlation with potential sources and spatial variations.

Groundwater and Vadose Zone Monitoring

Based upon the initial evaluation of the extent of methane/explosive gases in the subsurface and the

source evaluation activities a gas-monitoring network may be installed. This network would consist of dual-purpose soil/groundwater monitoring wells. The wells would be completed with nested vapor probes at approximately 10-foot intervals through the vadose zone. These wells would be monitored in conjunction with the existing groundwater monitoring network to establish the extent of gas impacts and their relationship to conditions in the saturated zone

If the initial evaluation indicates a monitoring network is warranted, a separate workplan will be prepared addressing well design specifications and locations of new wells and the monitoring program for all wells.

Reporting

At the conclusion of the source evaluation tasks, a technical report describing the methods and results of the investigation proposed herein will be submitted to the LARWQCB. The report will address the need for a monitoring network and propose additional work that may be needed to assess the vadose zone vapor characterization and remediation.

Permitting and Schedule

Ambient vapor monitoring will begin on or before February 25, 2002. The initial soil gas evaluation using the existing CENCO wells and the methane source evaluation will begin within one week of receiving RWQCB approval.

Please contact me at your convenience if you have any questions or comments regarding the workplan presented.

Respectfully,

Ground Zero Analysis Inc.

Russell W. Juncal
CA Registered Geologist No. 3864
CA Certified Hydrogeologist no. 171

Attachments

cc: J. Christman

Administrative Record
No. 13

MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP*

1880 Century Park East, Suite 350, Los Angeles, California 90067
TEL: (310) 373-9790 FAX: (310) 373-2915 E-MAIL: jsm6@ix.netcom.com

Joel S. Moskowitz
DIRECT TEL: (310) 318-9528

Barbara S. Blinderman
Nelson E. Brestoff
Dennis A. Winston

March 11, 2002

2002 MAR 12 A 9:58

Dennis Dickerson
Executive Officer
California Regional Water Quality Control Board
– Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Re: CENCO Refinery, Santa Fe Springs –
Request for Update on Regional Board Action; New Soil Gas Report

Dear Mr. Dickerson:

Thank you for your immediate initial response to my request of February 6, 2002. However, I have not since then heard what has occurred except for the equivocal response from CENCO's lawyer. Please ask your staff to provide an update.

Attached you will find our consultant's Soil Gas Investigation Report for the First Quarter 2002. You will see that since the last reports that you had, alarming though they were, the concentration of soil gas with a gasoline odor has increased from 32% to 42% – now standing at 420,000 parts mer million.

This is obviously an emergency situation. Please let me know what the Regional Board's follow-through has been and will be.

Sincerely yours,

Joel S. Moskowitz

nrh:JSM

Administrative Record
No. 14

SOIL GAS INVESTIGATION REPORT
First Quarter 2002 (10th Sampling Event)

Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

Submitted To:

City of Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670-4619

and

City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670-3658

Prepared For:

Moskowitz, Brestoff, Winston & Blinderman, LLP
1880 Century Park East, Suite 350
Los Angeles, CA 90067

Prepared By:

Alaska Petroleum Environmental Engineering, Inc.
12802 Valley View Street, Suite 9
Post Office Box 5365
Garden Grove, CA 92846
March 2002

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

March 5, 2002

City of Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670-4619

Attn: Fire Marshall Sean Escontrias

City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670-3658

Attn: Andrew C. Lazzaretto
Redevelopment Consultant

Re: Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

Gentlemen:

Attached herewith is the "Soil Gas Investigation Report, First Quarter 2002 (10th Sampling Event)" prepared by *Alaska Petroleum Environmental Engineering, Inc.* that pertains to the referent site. The methane concentration in well SV9, located at the northeastern exterior corner of the building, increased from 34 to 42% (420,000 parts per million) since the last sampling event.

Pursuant to a previous conversation with Mr. Lazzaretto, in addition to the on-site sampling, two exterior utility vaults and the building interior were tested for methane. The vaults (GTE and City Sewer) are located in the street near the intersection of Lakeland Road and Getty Drive. Vapors collected from the manholes measured 0.2% methane. No detectable concentrations of methane were measured inside the building.

If you have any questions or comments regarding the contents of this report, please do not hesitate to contact me at extension 207.

Sincerely,

R. Glenn Stillman
Principal Engineer
RGS/kae

Alaska Office
907·479-9555
P.O. Box 81904
Fairbanks, Alaska 99708

California Office
714·897-2733
FAX 714·897-0031
P.O. Box 5365
Garden Grove, CA 92846

c: Ira Levin, Esq. – Senior Vice President/General Counsel, Robertson Properties Group (RPG)
Sabrina Sinser, Esq. – RPG
Brett C. Wood - Director of Property Management, RPG
Joel S. Moskowitz, Esq. - Moskowitz, Brestoff, Winston & Blinderman, LLP
Paul Cho - California Regional Water Quality Control Board
Rick Hedrick – The Carson Companies
Bill Coleman – Metropolitan State Hospital, Health & Safety Department, Health & Safety Officer
Jeffrey P. Johnson – Los Angeles Real Estate Group, Wells Fargo Bank
Michael Kaplan – Performance Team Freight

City of Santa Fe Springs Fire Department
Quarterly Methane Monitoring Well Report
March 2002

Agency File Number:	Not Applicable (NA)
Agency Contact Person:	Fire Marshall Sean Escontrias
Facility Name:	Pacific Distribution Center
Facility Address:	11224 S. Norwalk Boulevard Santa Fe Springs, CA
Quarterly Reporting Period:	1st Quarter 2002 (January - March)
Work Objective:	To comply with City Ordinance No. 829

Work Performed This Quarter:

1. Conducted methane monitoring at all 10 wells at two sample interval depths, and inside building
2. Submitted monitoring report

Work Proposed For Next Quarter:

1. Conduct methane monitoring at all 10 wells at two sample interval depths, and inside building
2. Prepare quarterly monitoring report

Relevant Site Data:

• Methane Venting System	Passive	(passive, active)
• Depth of Permanent Wells	10 and 20	(feet below ground surface)
• Maximum methane concentration to date (laboratory analysis) and affected well	26.4 | SV9-20	(% in air | well ID)
• Maximum methane concentration this quarter (gas analyzer) and affected well	42.0 | SV9-20	(% in air | well ID)

Applicable Reporting Requirements:

• Current project phase	Assessment	(assess, remediate, etc.)
• Sampling frequency	Once	
• Monitoring frequency	Quarterly	(monthly, quarterly)
• Sampling Duration	Annual	(annual, continual)
• Current Remedial Technique	N/A	(SVES, removal, N/A)

Project Summary and Anticipated Future Work

Ten calendar quarters of methane monitoring have been conducted. The methane concentration in SV9 has increased almost 24% since the last sampling event. The vapor from SV8 and SV9 has a gasoline-like odor. All wells, and the northeastern interior corner

of the building, will be sampled on a quarterly basis using a methane gas analyzer. Due to the elevated concentrations of methane detected at these two wells, the inside of the building will be tested each quarter. No detectable concentrations of methane were measured inside the building this quarter.

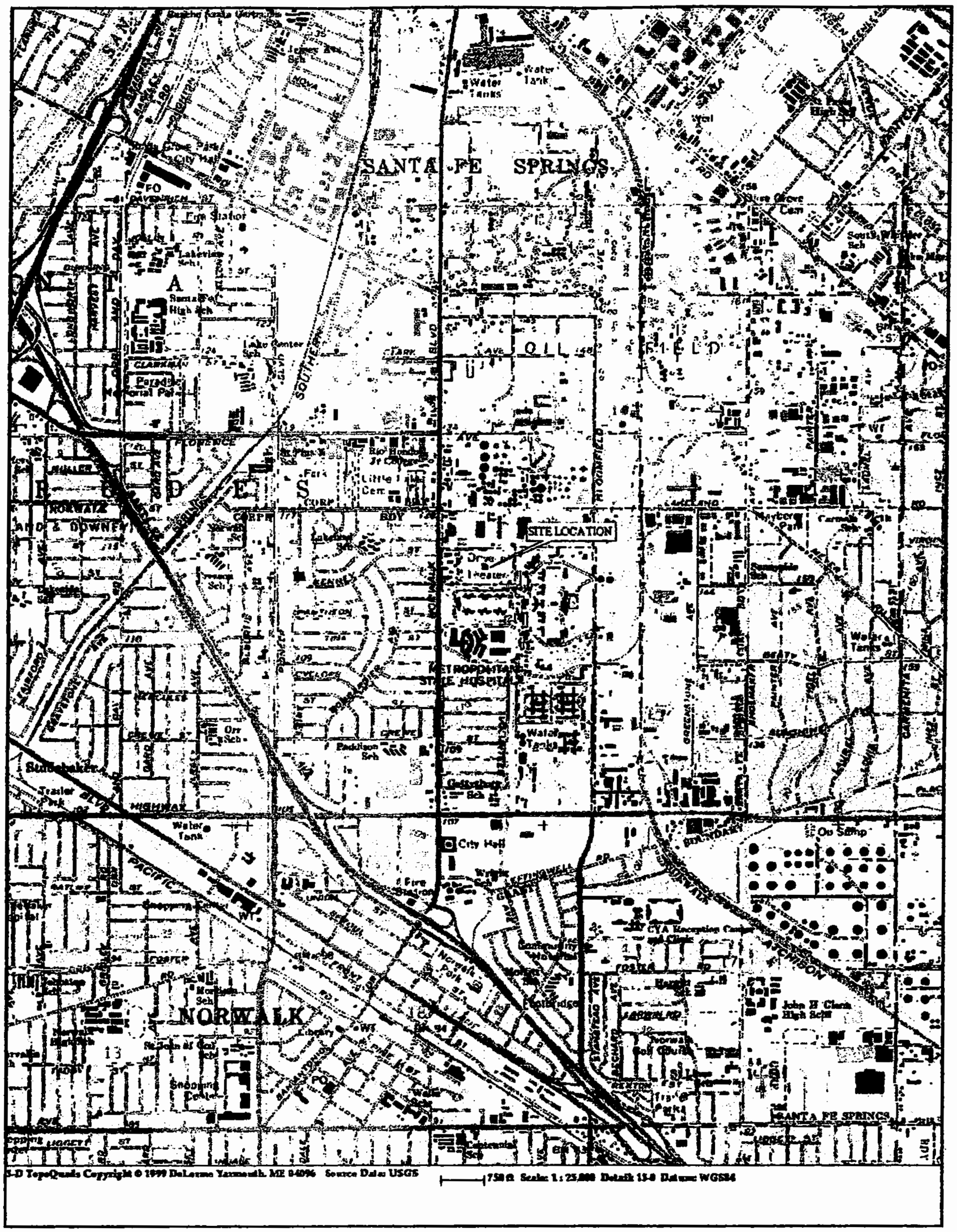
ATTACHMENTS:

- Site Location Map (Figure 1)
- Permanent Methane Monitoring Well Locations (Figure 2)
- Methane Concentration in Air; Chronological Listing of Analytical Data (Table I)

Report Prepared By:

R. Glenn Stillman
Principal Engineer

Attachments



UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY, WHITTIER QUADRANGLE,
7.5 MINUTE SERIES (TOPOGRAPH), SANTA FE SPRINGS, CALIFORNIA 1965 (PHOTO REVISED 1981)
Approximate Scale 1" = 1250'

N

ALASKA PETROLEUM ENVIRONMENTAL ENGINEERING

Alaska Office
P.O. Box 81904
Fairbanks, AK 99708
907-479-8555

California Office
P.O. Box 8385
Garden Grove, CA 92846
714-897-2733
Fax 714-897-0031

TITLE:

SITE LOCATION
Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

DES.: A.L.S.	PROJECT NO.: 48115W3
APPD: R.G.S.	FIGURE NO.: 1
DATE: 03/02	

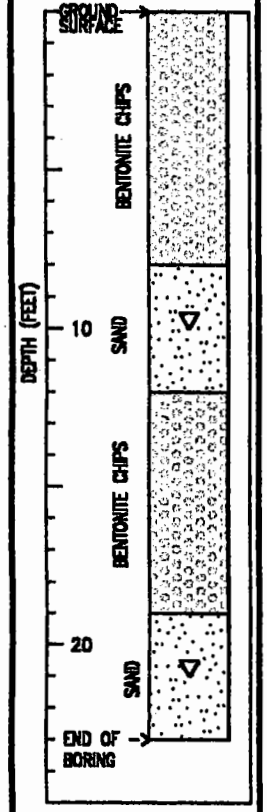
TABLE I
METHANE CONCENTRATION IN AIR
CHRONOLOGICAL LISTING OF RESULTS

Sample ID	Depth Sampled (feet) [1]	Methane Concentration (% in air)															
		07/02/99	07/08/99	08/06/99	08/15/99	11/02/99	11/08/99	03/07/00	03/13/00	07/03/00	07/06/00	12/22/00 [7]	03/16/01 [7]	06/07/01 [8, 9]	09/05/01 [8, 9]	12/19/01 [10]	02/20/02 [10]
SV1	10	ND [2]	ND	NS [3]	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.0
	20	ND	ND			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.4
SV2	10	ND	ND	NS	NS	ND	SL [4]	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2
	20	ND	ND			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.7
SV 3	10	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2
	20	ND	ND			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.2	0.2
SV 4	10	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2
	20	ND	0.012			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.8
SV 5	10	ND	0.0055	NS	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.8
	20	ND	0.034			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.1	0.0	1.0
SV 6	10	ND	0.019	NS	NS	ND	ND	ND	0.0052	ND	ND	NS	NS	00.0	00.0	0.0	0.7
	20	ND	ND			ND	ND	0.0013	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2
SV 7	10	ND	ND	NS	NS	0.019	ND	FL [5]	FL [5]	VAC [5A]	VAC [5A]	NS	NS	00.5	00.1	0.3	1.0
	20	0.0019	ND			0.058	0.029	ND	0.25	0.261	0.255	NS	NS	17.8	2.4	2.1	1.0
SV 8	10	ND	ND	NS	NS	0.27	0.20	0.10	ND	0.989	1.02	NS	NS	00.0	00.0	3.6	0.8
	20	0.0016	0.001			0.32	0.30	0.21	0.62	0.703	0.858	NS	NS	35.5	31.6	4.5	6.0
SV 9	10	2.9	0.79	4.8	ND	3.7	1.2	1.7	2.8	3.20	6.09	9.78	19.5	>100	56.8	19.0	10.0
	20	6.2	4.5	13	ND	13	2.3	9.9	8.9	13.7	20.5	17.9	26.7	>100	>150	34.0	42.0
SV 10	10	ND	ND	NS	NS	ND	FL [5]	VAC [6]	VAC [6]	VAC [6]	VAC [6]	NS	NS	00.0	00.7	VAC [6]	VAC [6]
	20	ND	ND			ND	FL [5]	ND	ND	ND	ND	NS	NS	00.0	00.1	0.0	0.2

TABLE I
METHANE CONCENTRATION IN AIR
CHRONOLOGICAL LISTING OF RESULTS

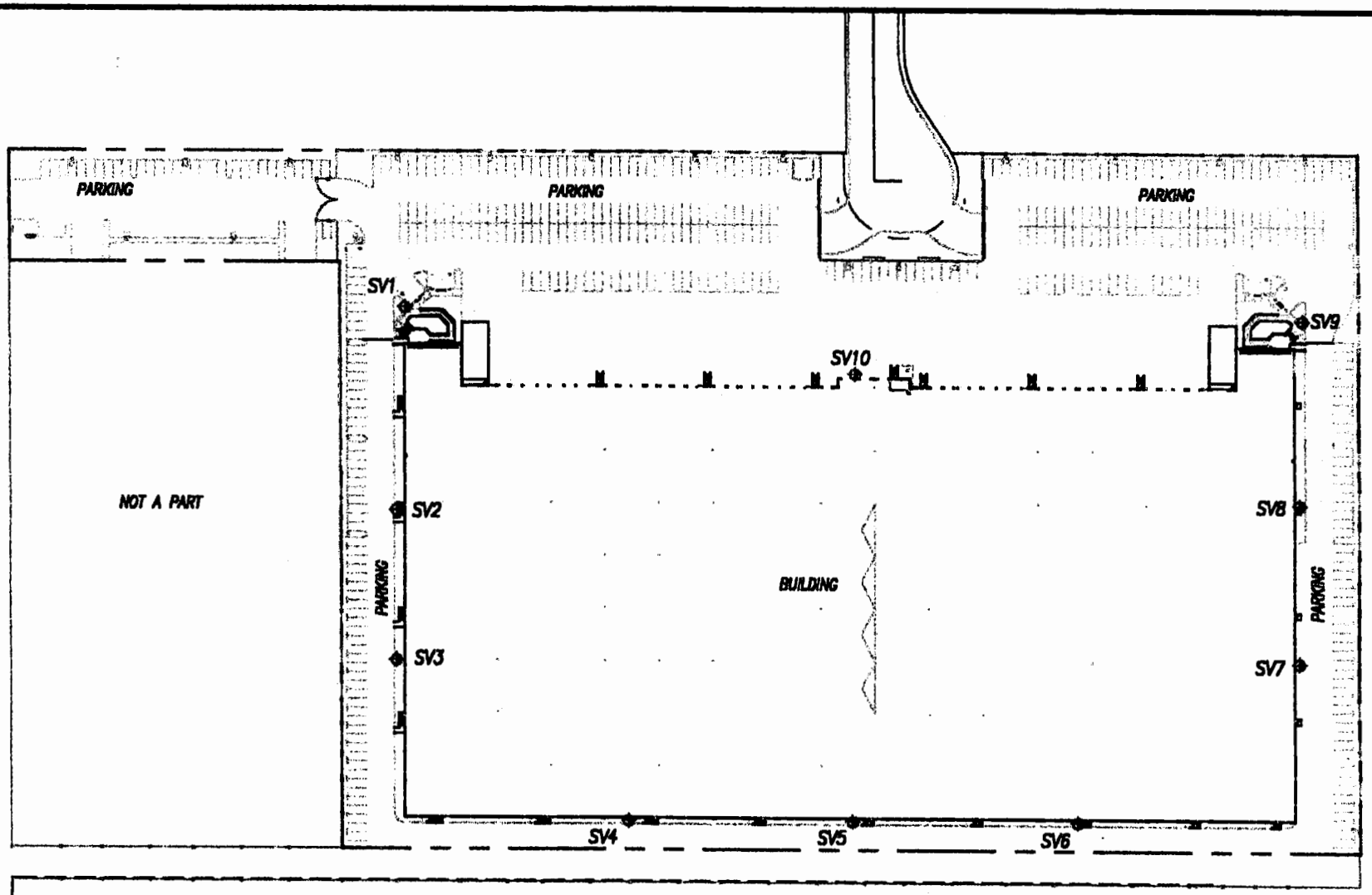
NOTES: (From 07/99 - 07/00 all samples were collected in Tedlar bags with the samples analyzed by a State certified laboratory)

[1]	(feet)	=	Feet below ground surface (bgs); vadose zone samples are at 8 - 12, and 18 - 22' bgs; depth noted is the installation depth of the soil vapor point.
[2]	ND	=	Analytical result was non-detect or was below the test method's detection limit of 0.001% methane in air.
[3]	NS	=	Not Sampled; the August 1999 sampling event included only SV-9 to determine if the initial analytical results were anomalous.
[4]	SL	=	Sample "lost" after receipt by laboratory; sample bag was deflated and insufficient gas was available for analysis.
[5]	FL	=	Christy box (well) flooded; no sample could be collected as sample pump was pulling a vacuum.
[5A]	VAC	=	After well box was flooded this vapor point now only pulls a vacuum.
[6]	VAC	=	No sample could be collected as sample pump was pulling a vacuum.
[7]			Only SV9 was sampled this quarter; all other wells that can be sampled (i.e., do not "pull" a vacuum) will only be sampled on an annual basis.
[8]			Due to the elevated methane concentration in well SV9, all wells were resampled.
[9]			A Landtec Model GA-90 Landfill Gas Analyser was used for on-site analysis.
[10]			An Industrial Scientific Corporation Model MDU420 Methane Monitor was used for on-site analysis.



▽ = VAPOR POINT

TYPICAL CROSS SECTION SOIL VAPOR MONITORING WELL



ALASKA PETROLEUM ENVIRONMENTAL ENGINEERING

Alaska Office
P.O. Box 81804
Fairbanks, AK 99708
907-479-0568

California Office
P.O. Box 5365
Garden Grove, CA 92846
714-897-2733
Fax 714-897-0031

LEGEND:

◆ SV3 VAPOR MONITORING WELL LOCATION/IDENTIFICATION

SITE DIAGRAM OBTAINED FROM:
HILL PINCKERT ARCHITECTS INC.
PROJECT: 97031 SHEET: A1.1
DRAWN BY: SABA1 DATE: 6/8/98

TITLE:

PERMANENT SOIL VAPOR SAMPLE LOCATIONS

11224 S. NORWALK BOULEVARD
SANTA FE SPRINGS, CA

DWN:	DES.:	PROJECT NO.:
S.R.R.	S.R.R.	48115W3
CHK'D:	APP'D:	FIGURE NO.:
A.L.S.	R.G.S.	2
DATE:	REV.:	
7/99	0	

Administrative Record
No. 15

California Re onal Water Quality C ntrol Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

March 12, 2002

Ms. June Christman
CENCO Refining Company
P.O. Box 2108
Santa Fe Springs, CA 90670

CERTIFIED MAIL
Return Receipt Requested
Claim No. 7000 0600 0028 7445 5224

WORKPLAN APPROVAL - CHARACTERIZATION OF VADOSE ZONE METHANE, CENCO REFINERY, 12345 LAKELAND ROAD, SANTA FE SPRINGS (CLEANUP AND ABATEMENT ORDER NO. 97-118, SLIC NO. 318A)

Dear Ms. Christman:

We have received the February 15, 2002, *Workplan for Characterization of Vadose Zone Methane, CENCO Refining Co.*, prepared by Ground Zero Analysis, Inc. on your behalf, for assessing the source, extent and potential hazards associated with elevated levels of methane in soil vapor in the vicinity of the subject site. This workplan was prepared and submitted pursuant to our February 8, 2002 letter sent to you and the February 14, 2002 meeting with you.

You are hereby authorized to proceed with the proposed work described in the workplan, including ambient vapor monitoring, evaluating all potential sources of methane, and determining the lateral extent of elevated mathane levels in soil vapor. Your assessment report shall be submitted by **April 30, 2002**. However, the results of ambient vapor monitoring and the initial soil gas evaluation using the existing wells shall be submitted within 30 days after the results are available.

Should CENCO fail to submit the required technical assessment report by April 30, 2002, or comply with any provision of this Order, it may be subject to further enforcement action, including injunction and civil monetary remedies, pursuant to appropriate California Water Code sections including, but not limited to, sections 13304, 13350, 13385, and 13386.

Should you have any questions, please contact Mr. John Geroch at (213) 576-6737 or Mr. Paul Cho at (213) 576-6721.

Sincerely,

Dennis A. Dickerson
Executive Officer

cc: Neil Welland, City of Santa Fe Springs, Headquarters Fire Station
Frederick Latham, City Manager, City of Santa Fe Springs
South Coast Air Quality Management District
State Department of Toxic Substances Control
Joel Moskowitz, Moskowitz, Brestoff, Winston & Blinderman LLP

7000 0600 0026 7445 5229

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Recipient's Name (Please Print Clearly) (to be completed by mailer)
Mr. June Christman
Street, Apt. No.; or PO Box No.
P.O. BOX 2108
City, State, ZIP+4
SANTA FE SPRINGS, CA 90670

PS Form 3800, February 2000 — See Reverse for Instructions

PC Cenco Refin
SLIC 518
CAO #: 97

MAR 1 6 2001

Administrative Record
No. 16

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

March 12, 2002

Mr. Joel S. Moskowitz, Esq.
Moskowitz, Brestoff, Winston & Blinderman LLP
1880 Century Park East, Suite 350
Los Angeles, CA 90067

CERTIFIED MAIL
Return Receipt Requested
Claim No. 7000 0600 0028 7445 5217

REQUEST FOR REGIONAL BOARD ACTION – CENCO REFINERY, 12345 LAKELAND ROAD, SANTA FE SPRINGS (CLEANUP AND ABATEMENT ORDER NO. 97-118, SLIC NO. 318A)

Dear Mr. Moskowitz:

We have received your letter of February 6, 2002 (Letter) requesting that the California Regional Water Quality Control Board, Los Angeles Region (Regional Board), require CENCO to mitigate the presence of methane and/or gasoline vapors (Gases) migrating or originating from the CENCO refinery. Your Letter also states that the presence of Gases presents *"...a grave and imminent danger..."* that *"These gases present more than calculable toxicity and carcinogenicity..."* and *"It appears however, that your agency has not yet taken such action in the intervening months..."*

On October 25, 2001, the City of Santa Fe Springs Fire Department (Fire Department) transmitted a letter (Transmittal Letter, copy attached) and copy of the "Soil Gas Investigation Report, Second – Third Quarter 2001 (7 – 8th Sampling Event) dated September 2001 (Report), prepared by Alaska Petroleum Environmental Engineering, Inc. (APEE), and informed Regional Board staff that based on the information presented in this Report, and other reports for nearby areas, high levels of methane and other soils gases were detected in the area. The Transmittal Letter also states that information presented in the Report *"...strongly suggests that contamination emanating from CENCO is responsible for high levels of soil gas found on properties southwest of the refinery."* The Transmittal Letter did not describe the situation as an imminent threat nor discussed the toxicity or carcinogenicity of the gases measured. The Report did not provide an analysis nor discussion of the toxicity or carcinogenicity of the gases, as indicated in your letter.

Upon receiving the Transmittal Letter and a copy of the Report from the Fire Department, Regional Board staff discussed these issues with CENCO during November 2001 and as per Regional Board staff's request, APEE forwarded a copy of its Report to CENCO (see attached letter). Since this Regional Board staff required CENCO in March 2001 to perform a human health risk assessment, we requested in our letter of December 17, 2001 that CENCO submit additional information regarding their supplemental soil investigation, preparation of a remedial action work plan for soil and groundwater, and to prepare and implement the human health risk assessment work plan by January 31, 2002. On January 31, 2002, CENCO requested a two-week extension and stated that this information would be submitted by February 18, 2002. We received the report on February 21, 2002 and are currently reviewing this report.

Upon receiving your Letter, I arranged a meeting with Chief Welland of the Santa Fe Springs Fire Department and on February 8, 2002, I met with Chief Welland and inspected some of the suspect areas. The Santa Fe Springs Fire Department used a combustible gas indicator (CGI) to measure gas concentrations at several loations at 11224 S. Norwalk Avenue. According to the Fire Department, the CGI measured "0" at each area they sampled indicating no detectable concentrations of methane (please see attached February 13, 2002 letter from the City of Santa Fe Springs, Fire Chief). The Santa Fe Springs Fire Department has stated that they will occasionally monitor the area to assure that the concentration of methane does not become dangerous.

Our letter of February 8, 2002, required CENCO's immediate response to your concerns (copy attached). On February 14, 2002, Regional Board staff met with CENCO to discuss the status of CENCO's soil and groundwater investigation and remediation, and your request for regional board action to mitigate the presence of Gases. It was determined that CENCO will begin ambient vapor monitoring before February 25, 2002, and will develop and submit a soil gas investigation work plan to evaluate the presence, type and concentration of Gases at and near the CENCO refinerly. CENCO will also be prepared to implement the soil gas investigation work plan within one week after its approval by Regional Board staff. CENCO submitted "Work Plan for Characterization of Vadose Zone Methane, CENCO Refining Company", dated February 15, 2002, prepared by Ground Zero Analysis, Inc., for characterization of methane in the vadose zone. Regional Board staff are currently reviewing the work plan. CENCO's investigation will also identify whether the source(s) of the methane include the abandoned oil wells, decomposition of hydrocarbons, collection or distribution pipelines or a known landfill on the Metropolitan State Hospital grounds.

I believe the above information demonstrates the Regional Board staffs timely efforts to resolve these issues and the Regional Board will continue to provide oversight for the completion of the soil and groundwater investigation and remediation and for the protection of the State's water resources and public health.

Please call Mr. John Geroch at (213) 576-6737 or Mr. Paul Cho at (213) 576-6721 if you have any questions.

Sincerely,

Dennis A. Dickerson
Executive Officer

Enclosures

cc: Sayaren Amir, Department of Toxic Substances Control
David Klunk, City of Santa Fe Springs, Headquarters Fire Station
Fredrick Latham, City Manager, City of Santa Fe Springs
Larry Brown, SCAQMD, Manager of Air Toxic Unit
June Christman, CENCO Refining Company
Mark Miller, Robertson Properties Group
Sabrina Burton, Robertson Properties Group

U.S. Postal Service
CERTIFIED MAIL RECEIPT
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Total Postage & Fees	$

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Recipient's Name *(Please Print Clearly) (to be completed by mailer)*
Mr. Joel Maskowitz
Street, Apt. No.; or PO Box No.
1880 Century Park East, Suite 350
City, State, ZIP+4
Los Angeles, CA 90067

PS Form 3800, February 2000 — See Reverse for Instructions

PC Cenco Refinery
SLIC 318A
CAO# 97-118

MAR 14 2002

Administrative Record
No. 17

GROUND ZERO ANALYSIS, INC.

1714 Main Street
Escalon, California 95320-1927
Telephone: (209) 838-9888
Facsimile: (209) 838-9883

2002 MAR 25 P 1:50

March 15, 2002

Mr. Paul K. Cho
Mr. John Geroch
Los Angeles Regional Water Quality Control Board
320 W. Fourth St., Suite 200
Los Angeles, CA 90013

Subject: **STATUS UPDATE - CHARACTERIZATION OF VADOSE ZONE METHANE, CENCO REFINING CO., SANTA FE SPRINGS, CA (SLIC #318A)**

Dear Mr. Geroch:

This letter report presents a status update on activities taken to address the source, extent and potential hazards associated with elevated levels of methane and combustible gases in the vadose zone near the CENCO Refinery in Santa Fe Springs.

As you are aware, Cenco has been sued by the Pacific Distribution Center Norwalk, LLC for damages related to the methane and combustible gas problem in the refinery area. The work we are performing is focused directly on addressing the allegations of the lawsuit in addition to the issues raised in our meeting of February 14, 2002. The work performed to date has included; ambient air monitoring on the refinery property; evaluating potential sources of methane in the affected area; preliminary evaluation of potential methane transport into buildings using the an analytical vapor diffusion model and; beginning the determination of the area of vadose zone impacts using existing groundwater monitoring wells.

Vapor Monitoring of Ambient Air

On February 28 and March 1, Ground Zero personnel monitored for methane and other gases at and downgradient (south) of the refinery. The monitoring was conducted using field instrumentation consisting of a Landtech Model GA90 Infrared Landfill Gas Analyzer and a Gastech Model 201A explosimeter. The Landtech meter measures percent methane, percent lower explosive limit (LEL) of methane, percent CO_2 and percent O_2. The Gastech instrument measures total combustible gases (including methane) in ppmv and in percent LEL and also measures percent O_2. Measurements were

taken of "ambient" air at 15 locations.

The purpose of ambient air sampling was to determine if measurable levels of methane are present above ground at the Cenco Refinery. This information was intended to identify conditions that might present a fire or explosion hazard and to assist in evaluating the potential for methane in soil gas at depth to migrate to the surface.

Samples were measured with the field instruments at 14 locations on the refinery property and at 1 location on the grounds of the Metropolitan State Hospital. Most sample locations were in areas that presumably might tend to accumulate methane because of confinement and/or subgrade location. Descriptions of the sampling locations and instrument readings are summarized in Table 1. The locations of the ambient sampling points are shown on Figure 1.

Twelve of the sampling locations had no measurable concentrations of methane and were normal with respect to O_2 and CO_2 concentrations (atmospheric conditions). Only one sample location indicated methane concentrations above 0.25% of LEL, the level at which the Santa Fe Springs Fire Department requires a protective mitigation system under City Ordinance 829. This reading was obtained from a pipeline manhole in the east tank farm area. Follow-up investigation of this sample location indicated that the vapor measurement had inadvertently been taken in an active process line. The process water system collects petroleum liquids from sources such as pump and compressor cases and heat exchanger drains, and other liquids such as unit washdown water. To reduce fugitive air emissions, the system is mostly closed. Hydrocarbon vapors are expected anywhere within the process drain system, and levels exceeding the LEL would not be unusual.

The methane detected in the proces line is likely the result of localized decomposition of residual petroleum liquids in the junction box. CENCO staff took a second reading at this location on March 11, which showed a the peak concentration was about 1.1% methane. On March 13, additional monitoring was performed which showed methane concentrations below 0.8%. Readings in the two adjacent manholes, upstream and downstream, and found less than 0.1% methane.

Vapor Diffusion Modeling

In addition to the field monitoring, the Orange County Environmental Health Division Vapor Diffusion Model has been used to provide an initial estimate of potential methane flux into enclosed spaces or buildings. The attached results do not indicate any explosion hazards, however, model parameters are being refined with some additional site-specific data and revised model calculations will be presented at the conclusion of the source evaluation.

Vapor Monitoring of Groundwater Monitoring Wells

The casing vapors in the groundwater monitoring wells were monitored to determine if elevated methane or combustible gas concentrations are present in soil vapor at and immediately above the

- Regional Board files for UST's in the area of the area of the Lakeland Property.
- Air photos from several sources that depict the Hospital grounds during the time a landfill was operating.

The research noted above is ongoing and results will be reported in a future status letter.

Gas Fingerprinting

Depending upon the results of the in-progress Source Evaluation, discussed above, forensic gas samples may be analyzed from the wells on the Coaster and Pacific Distribution sites with the highest methane levels and compared to similar samples collected on the Refinery property and/or the State Hospital grounds. A State Certified laboratory will analyze the samples for C1-C7 hydrocarbons in order to assess chemical signatures, correlation with potential sources and spatial variations.

Groundwater and Vadose Zone Monitoring

After completing source evaluation activities a gas-monitoring network may be installed. This network would consist of dual-purpose soil/groundwater monitoring wells in key areas. The wells would be completed with nested vapor probes at approximately 10-foot intervals through the vadose zone and would be monitored in conjunction with the existing groundwater monitoring network to establish the extent of gas impacts and their relationship to conditions in the saturated zone.

Based upon the initial evaluation of the extent of methane/explosive gases in the subsurface it appears that additional monitoring points will be needed, particularly near identified sources such as abandoned gas/oil wells. In addition to the collection of additional source information, data on the presence of methane and dissolved hydrocarbons in groundwater is needed for correlation with the well casing vapor data. This groundwater sampling event will be initiated in the next 60 days and will include dissolved fuel hydrocarbons (total petroleum hydrocarbons, BTEX, MTBE) and methane.

After reviewing the source data and groundwater results the need for a monitoring network will be addressed. If warranted, a separate workplan will be prepared addressing well design specifications and locations of new wells and the monitoring program for all wells.

Reporting

At the conclusion of the source evaluation tasks, a technical report describing the methods and results of the investigation proposed herein will be submitted to your office. The report will address the need for a monitoring network and propose additional work that may be needed to assess the vadose zone vapor characterization and remediation.

Please contact me at your convenience if you have any questions or comments regarding the workplan presented.

Respectfully,

Ground Zero Analysis Inc.

Russell W. Juncal
CA Registered Geologist No. 3864
CA Certified Hydrogeologist no. 171

Attachments

cc: J. Christman

Administrative Record
No. 18

GROUND ZERO ANALYSIS, INC.

1714 Main Street
Escalon, California 95320-1927
Telephone: (209) 838-9888
Facsimile: (209) 838-9883

2002 MAY -3 A 11:03

April 30, 2002

Mr. Paul K. Cho
Mr. John Geroch
Los Angeles Regional Water Quality Control Board
320 W. Fourth St., Suite 200
Los Angeles, CA 90013

Subject: **STATUS UPDATE - CHARACTERIZATION OF VADOSE ZONE METHANE, CENCO REFINING CO., SANTA FE SPRINGS, CA (SLIC #318A)**

Dear Mr. Geroch:

This letter report provides an update on the activities taken to address the source, extent and potential hazards associated with elevated levels of methane and combustible gases in the vadose zone near the CENCO Refinery in Santa Fe Springs.

As we have previously disclosed to you, CENCO has been sued by the Pacific Distribution Center Norwalk, LLC for damages related to the methane and combustible gas problem in the refinery area. The work we are performing is focused directly on addressing the allegations of the lawsuit in addition to the issues raised in our meeting of February 14, 2002. The work performed to date has included; ambient air monitoring on the refinery property; evaluating potential sources of methane in the affected area; preliminary evaluation of potential methane transport into buildings using the an analytical vapor diffusion model and; beginning the determination of the area of vadose zone impacts using existing groundwater monitoring wells.

This letter report provides an update on the activities taken to address the source, extent and potential hazards associated with elevated levels of methane and combustible gases in the vadose zone near the CENCO Refinery in Santa Fe Springs.

Vapor Monitoring of Ambient Air

On February 28 and March 1, Ground Zero personnel monitored for methane and other gases at and downgradient (south) of the refinery. The purpose of ambient air sampling was to determine if measurable levels of methane are present above ground at the CENCO Refinery. This information was

intended to identify conditions that might present a fire or explosion hazard and to assist in evaluating the potential for methane in soil gas at depth to migrate to the surface. The results of this sampling were submitted to your office in our status report of March 15, 2002.

Vapor Diffusion Modeling

Vapor transport analysis was conducted using the Orange County Environmental Health Division Vapor Diffusion Model and presented in the March 15, 2002 status report. The model was initially run with a foundation crack factor of 0.01 cm^2/cm^2 based upon ASTM guidance (E1739-95). We spoke with Jim Strozier at OCHCA (714) 667-3700 to verify their foundation attenuation factor ("b") used in their analytical model. According to Mr. Strozier, their attenuation factor b represents the crack fraction and that they typically use 0.01 for residential property use and 0.001 for commercial property. The difference is that they want to be more health conservative for a residential use and the fact that commercial foundation slabs are generally thicker. The March 15 report used the more conservative residential factor and did not indicate any explosion or health hazards.

Vapor Monitoring of Groundwater Monitoring Wells

The casing vapors in the groundwater monitoring wells were monitored in February to determine if elevated methane or combustible gas concentrations were present in soil vapor at and immediately above the water table and to evaluate the lateral distribution of methane in this soil interval. The results of this monitoring were presented in the March 15, 2002 status report. The results of the monitoring indicated localized point sources for the detected methane. Additionally, methane concentrations did not correlate well with underlying groundwater contaminant concentrations. The well casing sample results show that high concentrations of methane near the water table do not translate into measurable concentrations of methane at the surface. These observations are consistent with localized sources of the observed methane, as discussed below.

Soil Gas Source Evaluation

An evaluation of the source or sources of methane and other gases in the vadose zone has been ongoing using a combination of historical research, agency records review and air photo analysis. Specific data sources that have been researched to date include:

- Division of Oil and Gas files for abandoned oil/gas wells and pipelines on the CENCO, Coaster, Pacific Distribution and State Hospital properties.
- The Santa Fe Springs Fire Department records for other areas of elevated methane.
- Regional Board files for UST's in the area of the area of the Lakeland Property.
- Air photos from several sources that depict the Hospital grounds during the time a landfill was operating.

<u>CA Division of Oil and Gas File Review</u>

A file review was performed at the CA DOG to investigate the status of the numerous oil/gas wells

located in the vicinity of the CENCO Refinery. Attachment A contains a copy of a portion of the DOG Santa Fe Springs field map and shows the location of wells on and around the refinery. Files were requested for wells located in the area along and south of Lakeland Boulevard where high methane levels have been detected. Of the files requested a number of them were checked out or could not be found. Attachment B contains brief notes from the files reviewed along with selected copies of file materials. We are continuing to follow-up to gain access to the files for several key wells that were not available for review.

The wells around in the vicinity of the refinery are quite old (from the 20's and 30's) and as such were drilled and abandoned according to far different standards than are acceptable today. The completion depths of these wells ranged from approximately 2000 – 5000 feet. Well operators included Chevron Ring Oil, Exxon, Gilbert Petroleum, Wilshire, Texaco, Union and others.

Due to documented problems in the Santa Fe Springs field and elsewhere the DOG has determined re-abandonment of these older wells is needed. Generally, wells are required to be re-abandoned whenever new construction or land use changes occur. The basis of this policy is the potential for these wells to leak gas and create explosive conditions such as the situation that occurred in Fairfax during the 1980s. The file review has shown that gas was present at high pressures in the well located in the vicinity of the refinery and the data we have obtained on the casing head gas composition in the Santa Fe Springs area indicates it is largely methane and ethane (Attachment C).

Each of the wells and their associated sumps may represent a localized or point source of methane and other gases. There is evidence that at least one well is associated with methane discharge. Well Exxon #4 was drilled in 1923 and is located in the north-central portion of the Coaster property (12330-12434 Lakeland Blvd). In 1998 the DOG required re-abandonment of this well and the installation of a venting system as part of the construction on the Coaster property. Methane was detected around the wellhead prior to abandonment. The venting system consists of a vent cone with piping along the building wall that terminates above the roof line. The top of the vent pipe was monitored in April of 1999 and showed a reading of 23% of LEL. The shallow vadose zone monitoring well adjacent to Exxon #4 (MW-6) shows a very high concentration of methane at the 15 foot level whereas wells to the east, west, southeast, southwest and south have methane concentrations that are 1-4 orders of magnitude lower (Attachment D). Other hydrocarbon gases, including propane, butane, pentane, hexane and heptane have been detected in the shallow soil vapors and may be indicative of gasoline or degrading hydrocarbons, as discussed below. Coaster's consultant concluded that the detected vapors were due to the "bacterial decomposition of a biodegraded condensate or other crude oil by-product".

The area of highest methane at the Coaster property is located near another Exxon well (Surbeck #1) that, according to City Fire Department records could not be located. A third Exxon well (#5) is located beneath the Coaster building but could also not be located for re-abandonment as requested by DOG. Additionally, another well Security Oil Syndicate No. 3 #1 is located on or just west of the Coaster property and was reportedly (per Santa Fe Springs Fire) within the street. The well was to have been located and abandoned in 1998, however, no files could be found by DOG personnel.

There are also several oil/gas wells located on or near the Pacific Distribution property where high levels

of methane have been detected in two shallow soil vapor monitoring wells. The two wells (of 9 total) that have detected significant levels of methane are located in the northeastern corner of the property. Just east of the Pacific site methane has been detected in an area where the Gilbert Petroleum Interests, Inc. well #1 was located. DOG files do not indicate that the well was abandoned, however, in 1998 an excavation in the area found an "open hole plugged with wood". Soil gas readings of 10% of LEL were recorded. Old wells Gilbert Petroleum Corp. #1, Industrial Oil Syndicate No. 4, #42 and Industrial Oil Syndicate No. 2, #22 are also located on or very near the Pacific Distribution site. No data has been made available by DOG on these wells to date.

As with the Coaster property, other hydrocarbon gases, including propane, butane, pentane, hexane and heptane have been detected in the shallow soil vapors and may be indicative of gasoline or degrading hydrocarbons. These vapors are present at levels that are 1-4 orders of magnitude lower than associated methane and may be due to the underlying dissolved plume, former underground tanks, product transmission lines or abandoned production sumps.

We are continuing to work with DOG to obtain files for wells in the area. The results of this research will be presented in a future status report.

Santa Fe Springs Fire Department Records Review

Ground Zero personnel met with a representative of the City Planning Department and subsequently reviewed Fire Department files related to the methane zone in Santa Fe Springs. The files indicate a broad area where elevated methane has been found associated with landfills, sewers, oilfield operations and unknown sources. Mr. Lazaretto indicated the designation of a "methane zone", as with other areas in the State is due to the oil field activities.

One of the larger generators of methane in the City is the Kalico #1 Landfill located southeast of CENCO. Levels up to 10% methane by volume have been detected at sites adjacent to the landfill (Kelly Pipe at 11801 Greenstone).

Regional Board UST files in the CENCO area

We have reviewed a number of files for active or former UST sites in the area where south of the refinery. The files that have been reviewed include:

- 12105 Lakeland - Galaxy Brazing:
- 12247 Lakeland - Torco USA Lubricants
- 12300 Lakeland - Coast Iron and Steel
- 12740 Lakeland -Porvene McKee
- 10840 Norwalk - Charles Godbey (A&B Auto)
- 10924 Norwalk - Wholesale Experts
- 11950 Norwalk - Lakenor
- 11212 Norwalk - Geminis Property Development
- 11400 Norwalk - Metropolitan State Hospital

- 11015 Bloomfield - Adamson Company
- 11240 Bloomfield - Balboa – Pacific
- 11240 Bloomfield - Airco CO_2 Plant
- 11700 Bloomfield -Kelly Pipe
- 11808 Bloomfield - Baker Petrolite (Former Magna Corp.)
- 11832 Bloomfield - S.E. Pipeline
- 11922 Bloomfield - Strecker Construction
- 12222 Florence - Transit Mixed Concrete

The files that were reviewed were not complete and in most cases very little information was available. At many sites tanks were removed with little documentation of site conditions. The following brief summaries compiled from files for sites located just south of the refinery and in the area of elevated hydrocarbon vapors demonstrate the limited information available.

12105 Lakeland Galaxy Brazing

- No sample analysis for benzene or MTBE.
- August 25, 1986 - Memo SFSFD witnessing removal of 550 gallon tank.
- December 23, 1987 - Investigation report regarding a 20 by 80 foot surface discharge of hazardous materials along the back property line not related to the UST.

12740 Lakeland, Porvene McKee

- No sample analysis for gasoline. Samples were only tested for TPH-D although the 1974 installation permit was for a gasoline tank.
- April 3, 1974 - Installation permit for 1000 gallon underground gasoline storage tank.
- October 10, 1989 - Removal of one 1000 gallon UST reported to store diesel although 1974 installation permit indicated storage for gasoline. Tank removal contractor indicated tank to be in "excellent condition". Only one soil sample was analyzed for TPH-D which was below detection limits.
- January 15, 1991 - Received LACPWD closure certification letter.

10924 Norwalk, Wholesale Experts

- No sample analysis for BTEX.
- September 10, 1984 - Memo SFSFD witnessing removal of 1000 gallon tank manufactured in 1954.

11950 Norwalk, Lakenor

- Site is on the UST list but the SFSFD has only a 1976 permit fee; no other data available.

11212 Norwalk, Geminis Property Development

- T,E,X and TPH-G detected, site assessment scheduled for 9/27/99 has not been done.
- May 29, 1998 - Removal of one 3000 gallon gasoline UST. SFSFD inspection notes indicated 100 gallons of liquid spilled when the backhoe ruptured the tank and soil had "obvious contamination". Soil samples from beneath the tank recorded 1200 ppm TPH-G, and T,E,X at 18, 12, and 93 ppb, respectively.
- January 19, 1999 - Initial September 17, 1998 workplan for site assessment was deemed incomplete "bare bones" by the SFSFD.
- May 17, 1999 - Subsequent February 22, 1999 workplan for site assessment to drill and sample three soil borings to a depth of thirty feet was approved.
- September 17, 1999 - Proposed site assessment was to occur but no information is present within the file.
- September 12, 2000 - Phone conversation with Brenda Nelson of SFSFD indicated the no site assessment has been conducted.

11400 Norwalk, Metropolitan State Hospital:

- File could not be located.

11015 Bloomfield, Adamson Company

- No report of tank removal sample results or contaminated soil removal; UST site was closed by the LACPWD.
- October 22, 1984 - Installation permit for two 10000-gallon gasoline and one 10000 gallon diesel fiberglass USTs.
- September 26, 1991 - Removal of three 10000 USTs indicated by a permit and field notes but no formal report with laboratory results was found in the file.
- June 10, 1992 - A SFSFD note to file reported "contaminated soil has been removed, manifest received, all OK".

- November 25, 1992 - Received LACPWD closure certification letter.

- July 30, 1996 - A LACPWD closure report letter for two areas impacted with TRPH (1425 ppm @5 ft and 7520 ppm @10 ft), not apparently related to gasoline/diesel USTs, which will be reviewed for closure by DTSC.

The contents of the files noted above indicate a number of potential sources for methane or other hydrocarbon vapors. Additional investigation of these sites is warranted.

Review of Air Photos for Metropolitan Hospital

The initial review of air photos of the Hospital in the 1940-1950 timeframe was inconclusive. Review of better quality photography at the Fairchild Collection has been scheduled for this month.

The presence of a landfill at the Hospital was documented from Los Angeles County Sanitation Department Records and reference to the landfill was also made in City Fire Department records. While the exact location of the landfill is currently unknown it is likely to have been in the northwest corner where undeveloped land is located and where brush/grass has recently been dumped. This is also the area where the two wells with elevated methane on the Pacific Distribution property are located.

Gas Fingerprinting

We propose to defer any detailed fingerprinting of vapor samples until more information is developed on potential contribution from the sources identified above.

Groundwater and Vadose Zone Monitoring

The source evaluation activities and previous well casing vapor sampling do not show a continuous plume of methane in the vadose zone. Rather there appears to be a discontinuous distribution more characteristic of localized or point sources. Additional data is needed around these point sources prior to considering the installation of a gas-monitoring network.

As noted in the March 15, 2002 status report, data on the presence of methane and dissolved hydrocarbons in groundwater will be obtained shortly for correlation with the earlier well casing vapor data.

Summary and Recommendations

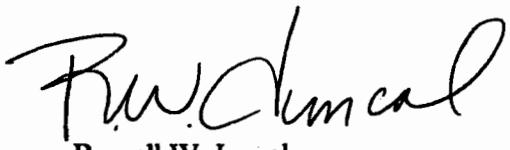
The characterization and source identification work performed to date has not shown an explosive hazard associated with the elevated concentrations of hydrocarbon vapor in soils at and south of the refinery. Additionally, the data has not shown a strong correlation with known contaminant sources that may be attributable to CENCO. Potential contributions by CENCO to the vadose zone vapor contamination would include petroleum hydrocarbons degassing from groundwater and/or residual

hydrocarbons in soils located on the former Lakeland property. The soil vapor contaminant distribution at and around the Lakeland property is not consistent with those sources as the sole or even primary contributor. The vapor contaminant distribution appears more consistent with localized or point sources such as improperly abandoned oil wells, old production sumps, USTs or landfills. A large number of these likely potential sources have been identified. The operators or owners of these potential sources should investigate them individually. CENCO requests the cooperation of the RWQCB in working with these parties to obtain data that can be incorporated into the data base developed by CENCO to date.

Please contact me at your convenience if you have any questions or comments regarding the data presented or the work being performed for this site.

Respectfully,

Ground Zero Analysis Inc.



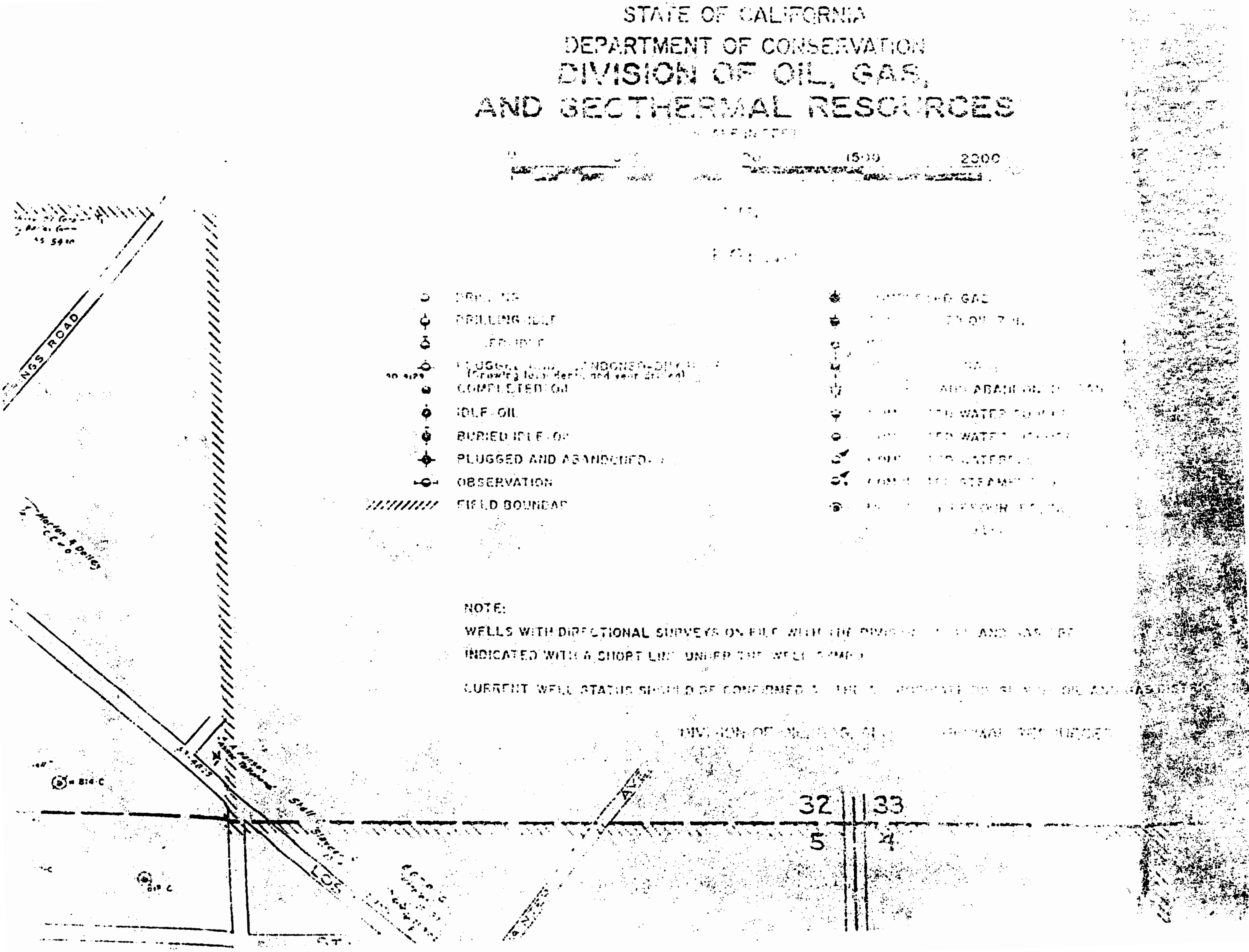
Russell W. Juncal
CA Registered Geologist No. 3864
CA Certified Hydrogeologist no. 171

Attachments:

A. Portion of DOG map depicting oil/gas wells near CENCO Refinery
B. DOG file review notes
C. Casing head gas composition in the Santa Fe Springs
D. Vadose zone monitoring data from Coaster Property

cc: M. Barranco

ATTACHMENT A


STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS,
AND GEOTHERMAL RESOURCES
1500
2000
DRILLING IDLE
COMPLETED OIL
IDLE OIL
BURIED IDLE OIL
PLUGGED AND ABANDONED
OBSERVATION
FIELD BOUNDARY
NOTE:
WELLS WITH DIRECTIONAL SURVEYS ON FILE
INDICATED WITH A SHORT LINE UNDER THE WELL SYMBOL
CURRENT WELL STATUS SHOULD BE CONFIRMED
NGS ROAD
32
33
5
4
AVE
LOS
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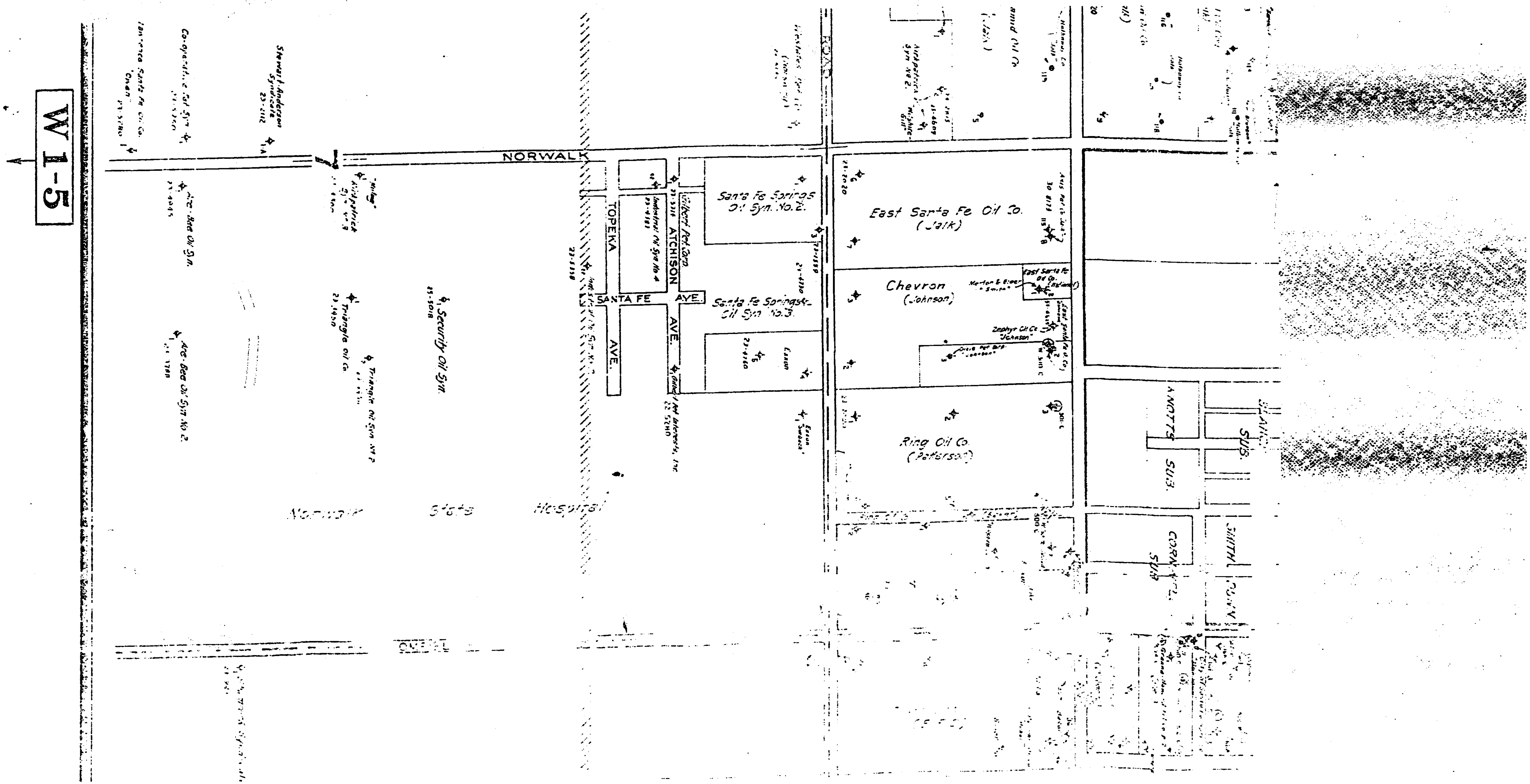


W 1-5
NORWALK
TOPEKA
AVE.
ATCHISON
AVE.
SANTA FE
AVE.
Santa Fe Springs Oil Syn. No. 2
Santa Fe Springs Oil Syn. No. 3
East Santa Fe Oil Co.
(Jalk)
Chevron
(Johnson)
Ring Oil Co.
(Paterson)
Zephyr Oil Co
"Johnson"
Security Oil Syn.
Norwalk State Hospital
KNOTTS SUB.

ATTACHMENT B

Notes from Review of Well Files at Division of Oil and Gas
4/30/02

Chevron Johnson #2
- Had gas show, produced oil 1922, 1923 for a few months
- February 1925 abandoned. Left open hole in various sections with numerous bridge plugs.
- Had sump – oil well/ not economical. Did produce.
- Located on CENCO Refinery property along Lakeland.

Chevron Johnson #3
- Drilled in 1923. Non-economical oil well.
- Abandoned 11/21/24. Completed 1/26/25. Had sump hole. Did produce oil.
- Located on CENCO Refinery property along Lakeland.

Delta Projects Ltd. Baker #1
- 8/27/64 Permit.
- Dry hole, no oil or gas shows.
- This well located on northeast portion of refinery property

East Santa Fe Oil Co.
Jalk #6
- Abandoned in 1928 by ALCA – "Re-abandonment"
- Corner of Bloomfield and Lakeland
- Original well drilled in 1923
- Abandoned 1/9/24. Only got to 2,020 feet.
- Located on refinery in southwest corner

Jalk #7
- Produced water after some oil and abandoned.
- July 10, 1923 inspector noted "considerable gas was issuing from well".
- Located on refinery property; western portion
- Noted in file: Jalk #5 Produced water after some oil and abandoned. Located west of refinery property; across Norwalk

Exxon Mobil #2
- Drilled 1923 – oil well completed.
- Abandoned 1928
- Lost a 60' bailer in well in October 1927, which caused well to be lost.

Ring Oil Patterson #1
- Permit to drill October 26, 1922
- Only made it to 2,000 feet – abandoned July 10, 1924
- Filled with mud
- On refinery property, north of Coaster

Ring Oil Patterson #6

- Permit 11/15/22.
- Abandoned 2/1113/24. Only made depth of 116 feet.
- Filled with mud.
- On refinery property

Exxon Baker #2

- Permit July 14, 1923 – oil; 16 bbl/ day
- Abandoned in 1934
- On refinery in northeast corner

Exxon Baker #3

- Drilled 1923
- Abandoned 3/9/34
- Inspector noted gas with shows of oil
- On refinery in northeast corner

Exxon #4

- Rob Montgomery – Allen Company
- Drilled in 1923
- Re-abandonment April 2, 1999 (work done in 1998)
- Installed Class II 80 BOP and tested blowout prevention
- On Coaster property

Exxon #5 (Hamilton Oil Syn.)

- Couldn't located well in 1998 to re-abandon.
- Permit to drill 1/2/22
- Oil shows
- Leave hole filled with heavy mud and abandon 11/21/23
- Located on Coaster site

Santa Fe Springs Synd. No. 2/ Well #1

- Drilled 11/8/24 (report) (tested 1/19/23)
- Abandoned with heavy mud
- Heavy gas encountered which resulted in blowout
- Prevention equipment being installed
- Permit to drill 12/29/22
- Located north of Pacific site; near southeast corner of Lakeland and Norwalk.

Gilbert Petroleum Int. #1

- Drilled permit 1/31/23
- Located on Pacific property

ATTACHMENT C

GROUND ZERO ANALYSIS, INC.

MEMORANDUM

DATE: 02/11/02
TO: RWJ
FROM: GPS
SUBJECT: CENCO - NATURAL GAS INFO

Russell: I located the following information on Santa Fe Springs Field natural gas in the *Gas Engineers' Handbook*, McGraw-Hill, 1934:

Source	Methane	Ethane	CO_2	N_2	O_2
Santa Fe Springs Natl. Gas[1]	70%	28.0%	1.1%	0.9%	0
Santa Fe Springs Casinghead Gas[2]	76.1%	23.3%	0.4%	0.2%	0.1%

1 = Compiled from Bureau of Mines Technical Papers 109 and 158
2 = Los Angeles Gas and Electric Corporation

ATTACHMENT D

GeoScience Analytical Inc. "established March 1981"

4454 INDUSTRIAL ST. SIMI VALLEY, CA 93063 (805) 526-6532 FAX 526-3570 Email GEOSCI10@aol.com

July 20, 2000

Mr. Andrew C. Lazzaretto, Jr.
Fire Marshall Fred Nikitin
City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670-3[illegible]

RE: 12330 - 12434 Lakeland Road, Santa Fe Springs; Quarterly Sampling of Monitoring Wells (Coaster Building)

Dear Sirs:

We have [illegible] new monitoring wells at the above referenced site. Previous wells were de[illegible] to not meet requirements of City Ordinance. Eight (8) multi-interval [illegible] wells were installed at the locations shown on Figure 1.

[illegible] monitoring wells were sampled and analyzed for C1-C7 hydrocarbons [illegible] one (1) well vent was sampled and analyzed. Analytical data obtained [illegible] sampling period are reported in Table 1, attached.

Methane concentrations ranged from 2.3 ppm to 203,840.0 ppm (v/v) at the five (5.0') foot sampling interval. At fifteen (15.0') feet, the maximum methane concentration was 255,740.0 ppm. Heavier homologues of methane were present above background levels (10.0 ppm) in several cases with iso-pentane as high as 13,996.0 ppm [illegible].

Methane concentration isopleths have been contoured at the 5.0' and 15.0' intervals [illegible] Figures 2 and 3, respectively.

Based on all available analytical data, the source of the methane is most likely bacterial decomposition of a biodegraded condensate or other crude oil by-product. Since methane concentrations exceed the explosive limit for methane by five fold within the surficial soils, we recommend that expansion joints, cracks and penetrations be screened for combustible gases and made a part of subsequent quarterly monitoring.

Cumulative hydrocarbon concentration data will be reported on a quarterly basis hereafter.

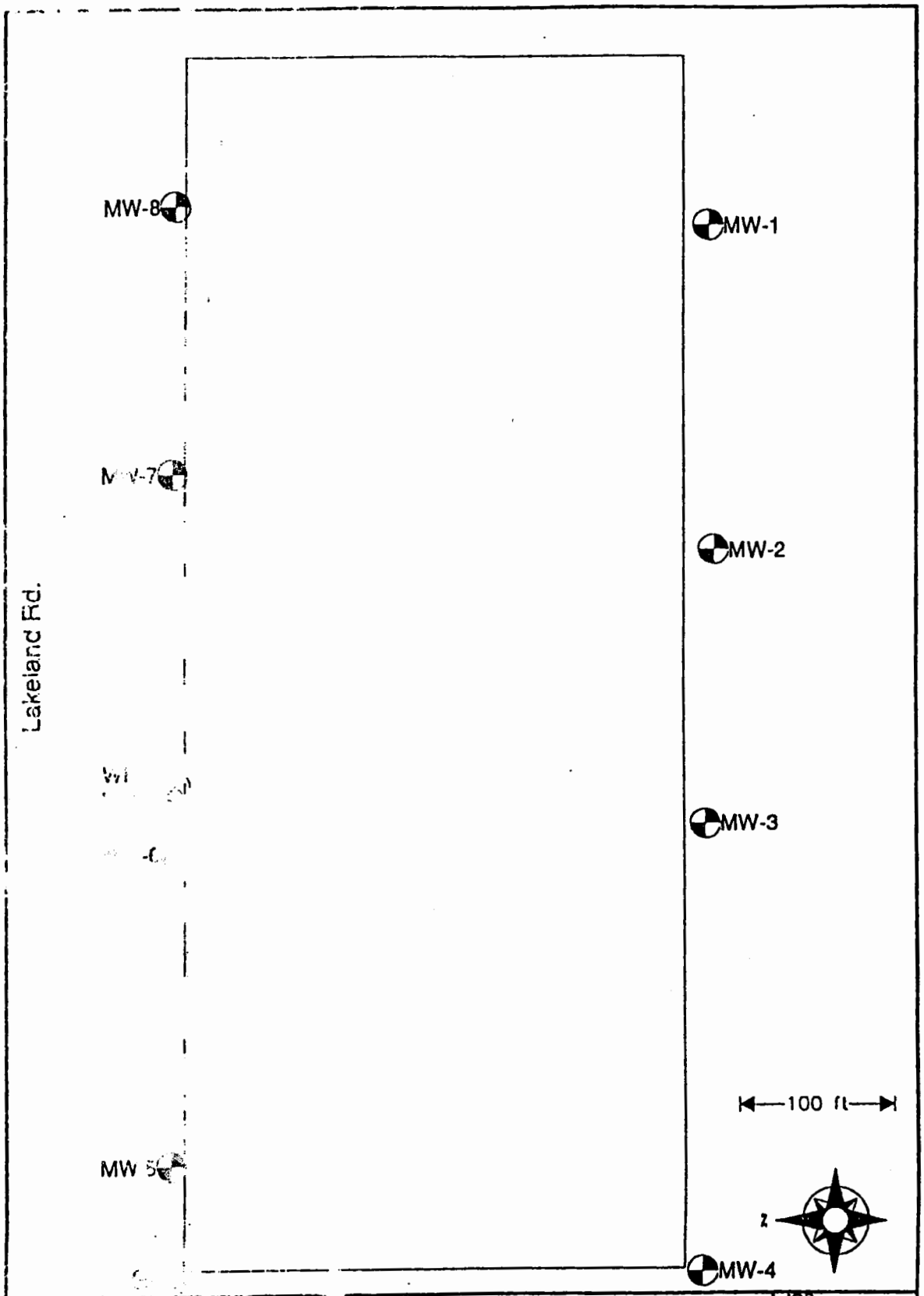
Sincerely yours,

Louis J. Pandolfi
Vice President-Operations

cc: Rick Hedrick, Th[illegible]arson Co.

reCAR07200.wsd

FIGURE 1



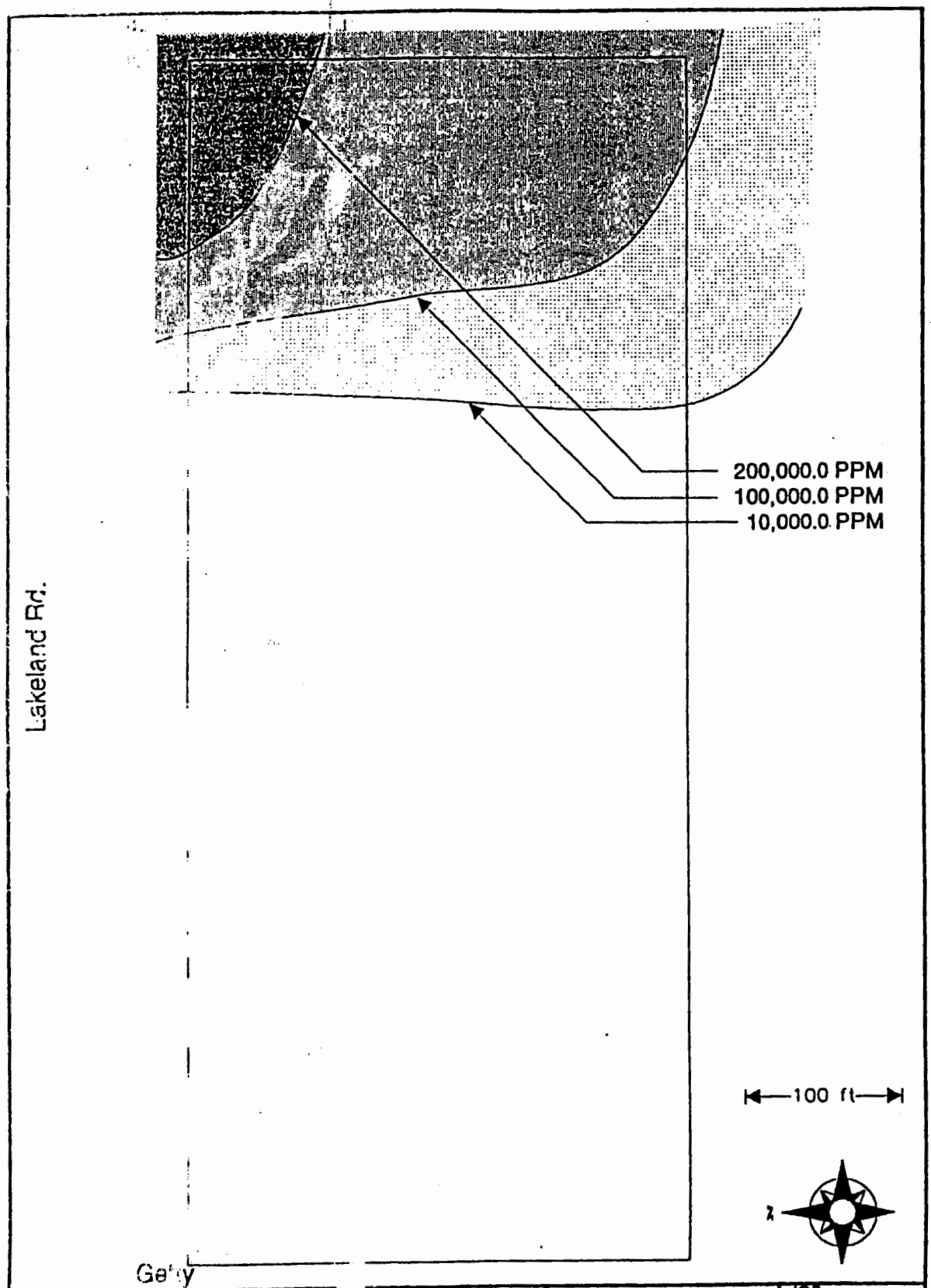
GEOSCIENCE ANALYTICAL, INC.
454 Industrial Street
Simi Valley, CA 9306
TEL. (805) 526-6532 FAX. 5

SHEET TITLE: MONITORING WELL LOCATIONS

PROJECT:
COASTER BUILDING
12330 - 12434 LAKELAND ROAD
SANTA FE SPRINGS, CA

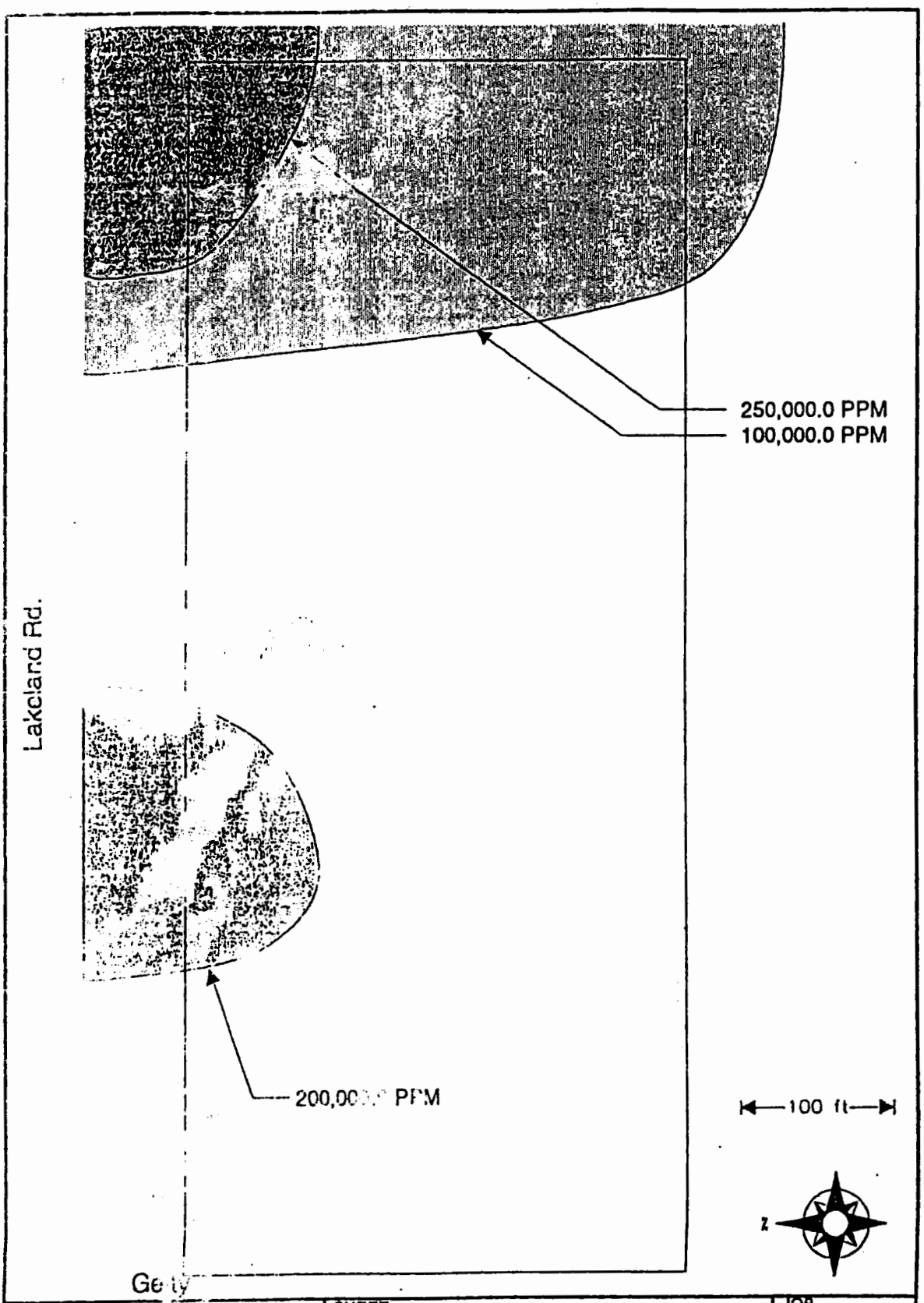
JOB NO.	2403
DWN. BY:	LJP
CHKD BY:	FER
DATE:	7/19/00
DWG. NO:	CAR07190.1

FIGURE 2



GEOSCIENCE ANALYTICAL INC. 4434 Industrial Street Simi Valley, CA 93063 Tel: (805) 526 6532 FAX: 526-3570	SHEET TITLE: METHANE CONCENTRATION ISOPLETHS (5.0')	JOB NO. 2403
	PROJECT: COASTER BUILDING 12330 - 12434 LAKELAND ROAD SANTA FE SPRINGS, CA	DWN. BY: LJP
		CHKD BY: FER
		DATE: 7/19/00
		DWG. NO: CAR07190.7

FIGURE 3



GEOSCIENCE ANALYTICAL, INC. 4154 Industrial Str. Simi Valley, CA 9306. TEL (805) 526-6532 FAX: 526-3270	SHEET TITLE: METHANE CONCENTRATION ISOPLETHS (15.0')	JOB NO. ,2403
	PROJECT: COASTER BUILDING 12330 - 12434 LAKELAND ROAD SANTA FE SPRINGS, CA	DWN. BY: LJP
		CHKD BY: FER
		DATE: 7/19/00
		DWG. NO.CAR07190.13

TABLE 1: C1-C7 HYDROCARBON MONITORING WELLS (PPM V/V) - 07/07/00 SAMPLING

Hydrocarbon	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6	
	5.0	15.0	5.0	15.0	5.0	15.0	5.0	15.0	5.0	15.0	5.0	15.0
Methane	86,481.0	1,750.0	78.6	42.4	26.7	1.1	6.9	1.0	0.1	12.0	125.0	203,890.0
Ethane	11.3	62.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	78.7
Ethylene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Propane	164.0	279.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	661.0
Propylene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iso-butane	748.0	1,206.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2,844.0
N-butane	682.0	1,138.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	5,296.0
Cyclopentane	17.5	24.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iso-pentane	2,013.0	3,448.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	9,548.0
N-pentane	469.0	82.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	3,042.0
Cyclohexane	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iso-hexane	1,288.0	2,080.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	6,106.0
N-hexane	760.0	129.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	654.0
Iso-heptane	380.0	614.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1,658.0
N-heptane	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

TABLE 1 (CONT.): C1-C7 HYDROCARBONS IN MONITORING WELL GAS (PPM V/V) - 07/07/00 SAMPLING

Location	MW-7		MW-8		Monitoring Well No. and Depth (Feet)						
	5	15.0	5	15.0							
Methane	5,846.0	28,773.0	203,840.0	255,740.0	[illegible]						
Ethane	2.5	[illegible]	55.0	128.0	<0.1						
Ethylene	<0.1	<0.1	<0.1	<0.1	<0.1						
Propane	3.1	18.9	539.0	845.0	<0.1						
Propylene	<0.1	<0.1	<0.1	<0.1	<0.1						
Iso-butane	90.3	313.0	2,670.0	3,781.0	<0.1						
N-butane	20.0	84.1	2,718.0	4,035.0	<0.1						
Cyclopentane	3.9	9.2	<0.1	<0.1	<0.1						
Iso-pentane	271.0	1,069.0	9,032.0	13,986.0	<0.1						
N-pentane	26.4	118.0	2,070.0	3,446.0	<0.1						
Cyclohexane	<0.1	39.3	<0.1	<0.1	<0.1						
Iso-hexane	205.0	314.0	2,076.0	3,753.0	<0.1						
N-hexane	<0.1	<0.1	264.0	380.0	<0.1						
Iso-heptane	151.0	106.0	505.0	812.0	<0.1						
N-heptane	<0.1	<0.1	<0.1	<0.1	<0.1						

wCAR07200.xpw

Administrative Record
No. 19

MOSKOWITZ, BRESTOFF, WINSTON & BLINDERMAN LLP*

1880 Century Park East, Suite 950, Los Angeles, California 90067

TEL: (310) 785-0550 FAX: (310) 373-2915 E-MAIL: jsm6@ix.netcom.com

May 6, 2002

VIA FEDERAL EXPRESS AND E-MAIL

Joel S. Moskowitz
DIRECT TEL: (310) 373-9790

Barbara S. Blinderman
Nelson E. Brestoff
Barry A. Gordon*
Rock Hankin*
Joel S. Moskowitz
Dennis A. Winston
*OF COUNSEL

Dennis Dickerson
Executive Officer
California Regional Water Quality Control Board -
Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Re: Cenco Refining Company

Dear Mr. Dickerson:

This letter is written on behalf of PDC Norwalk, LLC. On March 12, 2002 you sent a letter to me indicating what the Regional Board had directed be done concerning methane in the vicinity of the Cenco Refinery.

We believe these actions to be inadequate to address the extremely high and increasing levels of methane migrating from the Cenco Refinery to PDC's property. PDC Norwalk, LLC therefore requests that the Regional Board take the following action:

1. That the Regional Board issue a Cleanup and Abatement Order to Cenco Refining Company directing Cenco Refining Company to immediately come onto the property of PDC Norwalk, LLC and to abate the high levels of methane thereon.

2. That said Cleanup and Abatement Order further direct Cenco to promptly characterize the subject methane plume and to thereafter prevent further methane from reaching the property of PDC Norwalk, LLC.

Thank you for your cooperation.

Sincerely yours,

Joel S. Moskowitz

nrh:JSM

Administrative Record
No. 20

SOIL GAS INVESTIGATION REPORT
Second Quarter 2002 (11th Sampling Event)

Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

Submitted To:

City of Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670-4619

and

City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670-3658

Prepared For:

Moskowitz, Brestoff, Winston & Blinderman, LLP
1880 Century Park East, Suite 350
Los Angeles, CA 90067

Prepared By:

Alaska Petroleum Environmental Engineering, Inc.
12802 Valley View Street, Suite 9
Post Office Box 5365
Garden Grove, CA 92846
May 2002

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

May 14, 2002

City of Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670-4619

Attn: Fire Marshall Sean Escontrias

City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670-3658

Attn: Andrew C. Lazzaretto
Redevelopment Consultant

Re: Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

2002 MAY 20 P 2:18

Gentlemen:

Attached herewith is the "Soil Gas Investigation Report, Second Quarter 2002 (11th Sampling Event)" prepared by *Alaska Petroleum Environmental Engineering, Inc.* that pertains to the referent site. The methane concentration in well SV9, located at the northeastern exterior corner of the building, decreased from to 42% to 39% (390,000 parts per million) since the last sampling event.

If you have any questions or comments regarding the contents of this report, please do not hesitate to contact me at extension 207.

Sincerely,

R. Glenn Stillman
Principal Engineer

RGS/kae

Alaska Office
907·479-9555
P.O. Box 81904
Fairbanks, Alaska 99708

California Office
714·897-2733
FAX 714·897-0031
P.O. Box 5365
Garden Grove, CA 92846

c: Ira Levin, Esq. - Senior Vice President/General Counsel, Robertson Properties Group (RPG)
Sabrina Sinser, Esq. - RPG
Brett C. Wood - Director of Property Management, RPG
Joel S. Moskowitz, Esq. - Moskowitz, Brestoff, Winston & Blinderman, LLP
Dennis A. Dickerson – Executive Officer, California Regional Water Quality Control Board – Los Angeles Region (RWQCB)
Paul Cho - RWQCB
Rick Hedrick – The Carson Companies
Bill Coleman – Metropolitan State Hospital, Health & Safety Department, Health & Safety Officer
Jeffrey P. Johnson – Los Angeles Real Estate Group, Wells Fargo Bank
Michael Kaplan – Performance Team Freight

City of Santa Fe Springs Fire Department
Quarterly Methane Monitoring Well Report
May 2002

Agency File Number:	Not Applicable (NA)
Agency Contact Person:	Fire Marshall Sean Escontrias
Facility Name:	Pacific Distribution Center
Facility Address:	11224 S. Norwalk Boulevard Santa Fe Springs, CA
Quarterly Reporting Period:	2nd Quarter 2002 (April – June)
Work Objective:	To comply with City Ordinance No. 829

Work Performed This Quarter:

1. Conducted methane monitoring at all 10 wells at two sample interval depths, and inside building
2. Submitted monitoring report

Work Proposed For Next Quarter:

1. Conduct methane monitoring at all 10 wells at two sample interval depths, and inside building
2. Prepare quarterly monitoring report

Relevant Site Data:

• Methane Venting System	Passive	(passive, active)
• Depth of Permanent Wells	10 and 20	(feet below ground surface)
• Maximum methane concentration to date (*laboratory analysis*) and affected well	26.4 | SV9-20	(% in air | well ID)
Maximum methane concentration this quarter (*gas analyzer*) and affected well	39.0 | SV9-20	(% in air | well ID)

Applicable Reporting Requirements:

• Current project phase	Assessment	(assess, remediate, etc.)
• Sampling frequency	Once	
• Monitoring frequency	Quarterly	(monthly, quarterly)
• Sampling Duration	Annual	(annual, continual)
• Current Remedial Technique	N/A	(SVES, removal, N/A)

Project Summary and Anticipated Future Work

Eleven calendar quarters of methane monitoring have been conducted. The methane concentration in SV9 has decreased 7% since the last sampling event, but it is still very elevated. The vapor from SV8 and SV9 still has a gasoline-like odor. All wells, and the northeastern interior corner of the building, will be sampled on a quarterly basis using a

methane gas analyzer. Due to the elevated concentrations of methane detected at these two wells, the inside of the building will be tested each quarter. No detectable concentrations of methane were measured inside the building this quarter.

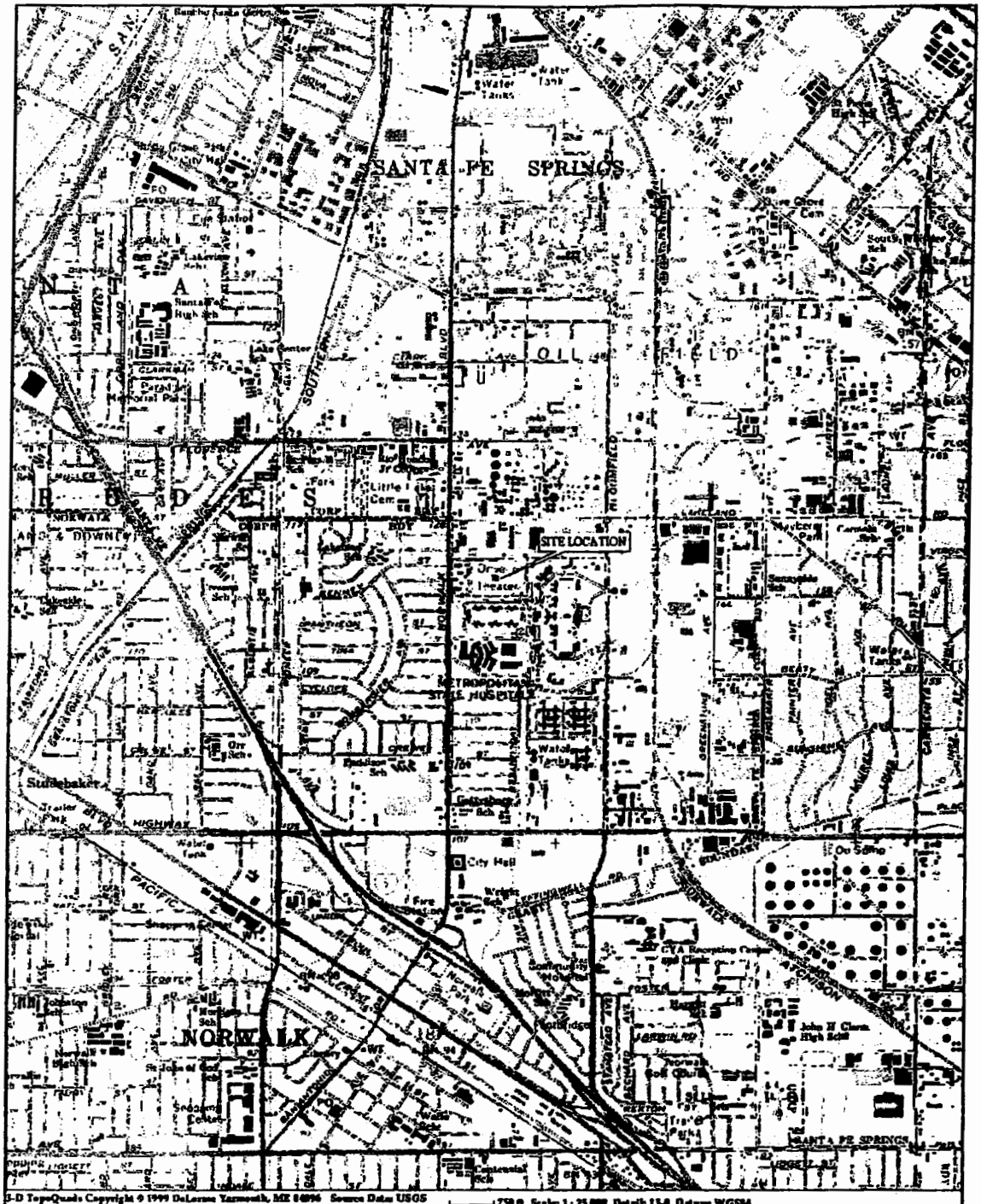
ATTACHMENTS:

- Site Location Map (Figure 1)
- Permanent Methane Monitoring Well Locations (Figure 2)
- Methane Concentration in Air; Chronological Listing of Analytical Data (Table I)

Report Prepared By:

R. Glenn Stillman - Principal Engineer
REA II #20206

Attachments



N

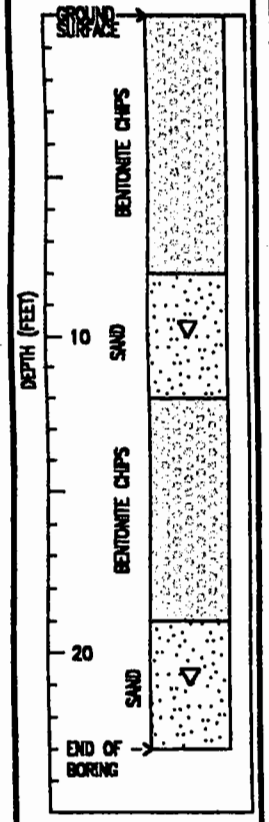
UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY, WHITTIER QUADRANGLE,
7.5 MINUTE SERIES (TOPOGRAPH), SANTA FE SPRINGS, CALIFORNIA 1965 (PHOTO REVISED 1981)
Approximate Scale 1" = 1250'

ALASKA PETROLEUM ENVIRONMENTAL ENGINEERING
Alaska Office
P.O. Box 81604
Fairbanks, AK 99708
907-479-8555
California Office
P.O. Box 5385
Garden Grove, CA 92846
714-897-2733
Fax: 714-897-0031

TITLE:

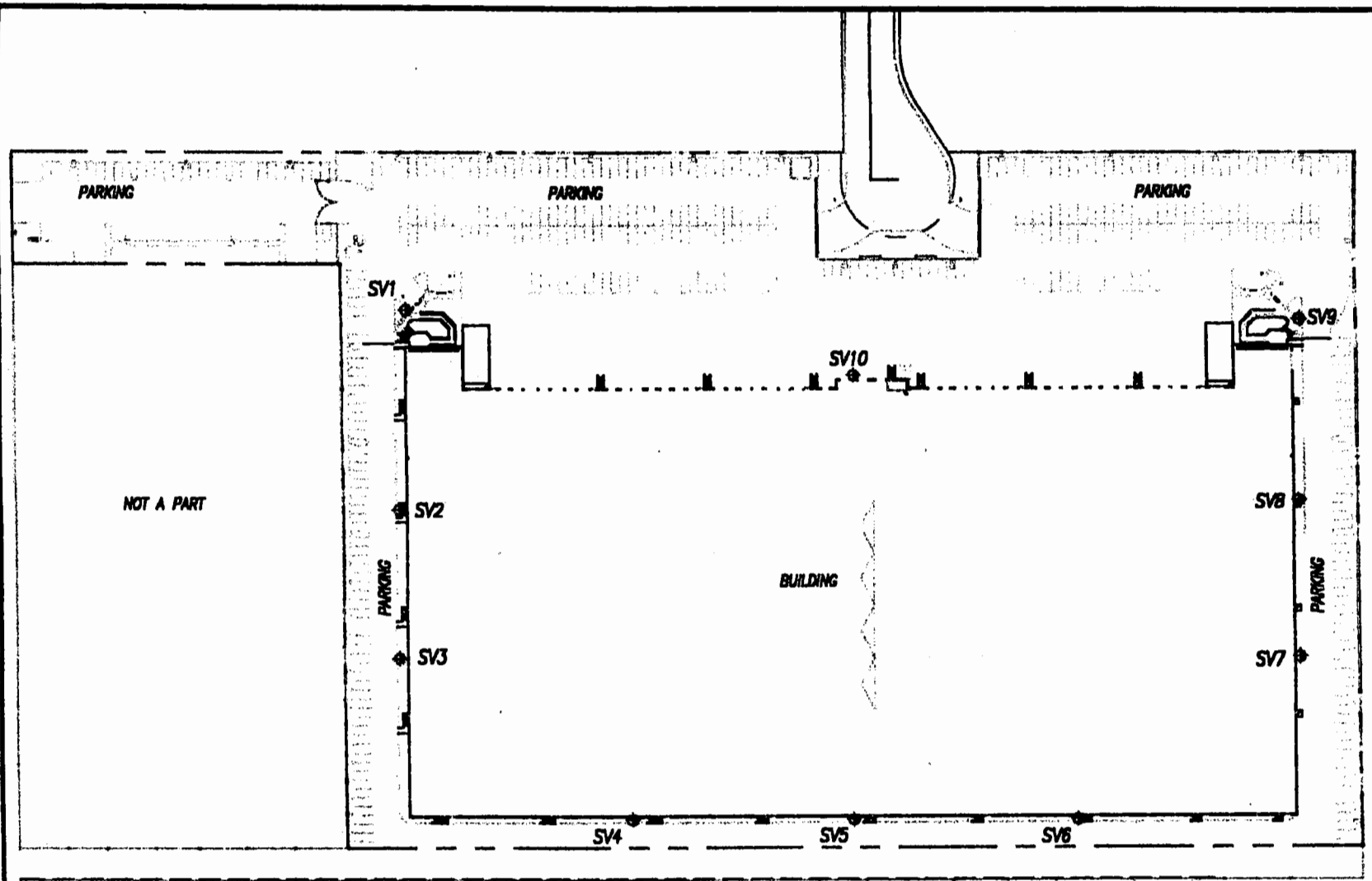
SITE LOCATION
Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

DES: A.L.S.	PROJECT NO: 48115W3
APP'D: R.G.S.	FIGURE NO: 1
DATE: 03/02	



▽ = VAPOR POINT

TYPICAL CROSS SECTION SOIL VAPOR MONITORING WELL



ALASKA PETROLEUM ENVIRONMENTAL ENGINEERING

Alaska Office
P.O. Box 81804
Fairbanks, AK 99708
907-479-9580

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P.O. Box 5365
Garden Grove, CA 92846
714-897-3733
Fax 714-897-0031

LEGEND:

◆ SV3 VAPOR MONITORING WELL LOCATION/IDENTIFICATION

SITE DIAGRAM OBTAINED FROM:
HILL PINCKERT ARCHITECTS INC.
PROJECT: 97031 SHEET: A1.1
DRAWN BY: SABA1 DATE: 6/8/98

TITLE:

PERMANENT SOIL VAPOR SAMPLE LOCATIONS

11224 S. NORWALK BOULEVARD
SANTA FE SPRINGS, CA

DWN:	DES.:	PROJECT NO.:
S.R.R.	S.R.R.	48115W3
CHK'D:	APP'D:	FIGURE NO.:
A.L.S.	R.G.S.	2
DATE:	REV.:	
7/99	0	

TABLE I
METHANE CONCENTRATION IN AIR
CHRONOLOGICAL LISTING OF RESULTS

Sample ID	Depth Sampled (feet) [1]	Methane Concentration (% in air)																
		07/02/99	07/08/99	08/06/99	08/15/99	11/02/99	11/08/99	03/07/00	03/13/00	07/03/00	07/06/00	12/22/00 [7]	03/16/01 [7]	06/07/01 [8,9]	09/05/01 [8,9]	12/19/01 [10]	02/20/02 [10]	05/10/02 [10]
SV1	10	ND [2]	ND	NS [3]	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.0	0.2
	20	ND	ND			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.4	0.2
SV2	10	ND	ND	NS	NS	ND	SL [4]	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2	0.2
	20	ND	ND			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.7	0.7
SV 3	10	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2	0.9
	20	ND	ND			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.2	0.2	0.6
SV 4	10	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2	0.3
	20	ND	0.012			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.8	0.9
SV 5	10	ND	0.0055	NS	NS	ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.8	0.8
	20	ND	0.034			ND	ND	ND	ND	ND	ND	NS	NS	00.0	00.1	0.0	1.0	0.2
SV 6	10	ND	0.019	NS	NS	ND	ND	ND	0.0052	ND	ND	NS	NS	00.0	00.0	0.0	0.7	0.2
	20	ND	ND			ND	ND	0.0013	ND	ND	ND	NS	NS	00.0	00.0	0.0	0.2	0.8
SV 7	10	ND	ND	NS	NS	0.019	ND	FL [5]	FL [5]	VAC [5A]	VAC [5A]	NS	NS	00.5	00.1	0.3	1.0	1.1
	20	0.0019	ND			0.058	0.029	ND	0.25	0.261	0.255	NS	NS	17.8	2.4	2.1	1.0	3.1
SV 8	10	ND	ND	NS	NS	0.27	0.20	0.10	ND	0.989	1.02	NS	NS	00.0	00.0	3.6	0.8	2.6
	20	0.0016	0.001			0.32	0.30	0.21	0.62	0.703	0.858	NS	NS	35.5	31.6	4.5	6.0	5.0
SV 9	10	2.9	0.79	4.8	ND	3.7	1.2	1.7	2.8	3.20	6.09	9.78	19.5	>100	56.8	19.0	10.0	10.0
	20	6.2	4.5	13	ND	13	2.3	9.9	8.9	13.7	20.5	17.9	26.7	>100	>150	34.0	42.0	39.0
SV 10	10	ND	ND	NS	NS	ND	FL [5]	VAC [6]	VAC [6]	VAC [6]	VAC [6]	NS	NS	00.0	00.7	VAC [6]	VAC [6]	VAC [6]
	20	ND	ND			ND	FL [5]	ND	ND	ND	ND	NS	NS	00.0	00.1	0.0	0.2	0.2

TABLE I
METHANE CONCENTRATION IN AIR
CHRONOLOGICAL LISTING OF RESULTS

NOTES:			(From 07/99 - 07/00 all samples were collected in Tedlar bags with the samples analyzed by a State certified laboratory)
[1]	(feet)	=	Feet below ground surface (bgs); vadose zone samples are at 8 - 12, and 18 - 22' bgs; depth noted is the installation depth of the soil vapor point.
[2]	ND	=	Analytical result was non-detect or was below the test method's detection limit of 0.001% methane in air.
[3]	NS	=	Not Sampled; the August 1999 sampling event included only SV-9 to determine if the initial analytical results were anomalous.
[4]	SL	=	Sample "lost" after receipt by laboratory; sample bag was deflated and insufficient gas was available for analysis.
[5]	FL	=	Christy box (well) flooded; no sample could be collected as sample pump was pulling a vacuum.
[5A]	VAC	=	After well box was flooded this vapor point now only pulls a vacuum.
[6]	VAC	=	No sample could be collected as sample pump was pulling a vacuum.
[7]			Only SV9 was sampled this quarter; all other wells that can be sampled (i.e., do not "pull" a vacuum) will only be sampled on an annual basis.
[8]			Due to the elevated methane concentration in well SV9, all wells were resampled.
[9]			A Landtec Model GA-90 Landfill Gas Analyser was used for on-site analysis.
[10]			An Industrial Scientific Corporation Model MDU420 Methane Monitor was used for on-site analysis.

Administrative Record
No. 21

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.swrcb.ca.gov/rwqcb4

MEMONRANDUM

To: John Geroch, Art Heather, David Bacharowski, Dennis Dickerson

From: Paul Cho

Date: May 31, 2002

RE: MAY 6, 2002 LETTER FROM MR. MOSKOWITZ REQUESTING ISSUANCE OF A CLEANUP AND ABATEMENT ORDER TO CENCO REFINING COMPANY FOR METHANE-RELATED PROBLEMS (CLEANUP AND ABATEMENT ORDER NO. 97-118, SLIC FILE NO. 318A)

Recommendation

A written request to Mr. Moskowitz for any information indicating high levels of methane at the property of Pacific Distribution Center Norwalk, LLC. (PDC) are caused by methane migrating from the CENCO Refinery.

Background

After we received Mr. Moskowitz's letter dated February 6, 2002, (copy attached) we issued a letter to CENCO dated February 8, 2002, (copy attached) requiring CENCO to address the issues in Mr. Moskowitz' letter. On March 12, 2002, we sent a letter to Mr. Moskowitz summarizing our actions taken (copy attached). On May 6, 2002, Mr. Moskowitz sent his letter (copy attached) stating that our actions were inadequate to address the high levels of methane migrating from the CENCO Refinery to PDC's property, and requesting that a CAO be issued to CENCO to abate the high levels of methane at the property of PDC and to characterize the subject methane plume and prevent further migration of methane to the property of PDC. Cleanup and Abatement Order 97-118 was issued to CENCO on August 25, 1997, (copy attached) and on August 25, 1997, we issued a Prospective Purchaser Agreement for the Lakeland Property (copy attached, and see Figure 1 attached).

CENCO agreed to prepare a work plan to investigate further high levels of gases, including methane and submitted the required work plan on February 15, 2002. After our approval, CENCO implemented the proposed work and submitted their assessment report on April 30, 2002 (copy attached).

Discussion

Mr. Moskowitz represents the PDC. PDC has sued CENCO for damages related to the methane and combustible gas problem in the refinery area. There are currently 10 methane monitoring wells at the PDC property. Previously, we were not informed about documented methane problems in the Santa Fe

Springs oil field due to the potential for old oil wells to leak gas and create explosive conditions such as the situation occurred in Fairfax during the 1980s.

The City of Santa Fe Springs currently requires methane monitoring at the facility within 250 feet from an old oil/gas well and 1,000 feet from a landfill. CENCO's assessment report states that several oil/gas wells located on or near the property of PDC where high levels of methane have been detected. Among 10 methane monitoring wells at the PDC, only one well (SV9) located in the northeastern corner of the property has detected significant levels of methane exceeding explosive levels. Based on our review of CENCO's assessment report, it is not clear whether the methane problem at the PDC is caused by the CENCO refinery. CENCO will submit additional information available in Division of Oil and Gas (DOG) files regarding abandonment of oil wells at the PDC.

However, based on investigations performed by CENCO to date, it appears that all methane problems at the PDC are not related to the CENCO refinery. However, we are still in the process of reviewing CENCO's April 30, 2002 assessment report because further information regarding 'methane zone' from the City of Santa Fe Springs and DOG is necessary to complete our review.

Since the PDC sued CENCO for damages related to the methane, Mr. Moskowitz may have some additional information. Mr. Moskowitz's previous allegation was based on detection of high levels of methane from SV9 only. The most recent data (2nd Quarter 2002) shows a decrease in methane level from SV9. Even at the highest level from SV9 (1st Quarter 2002), two exterior utility vaults and the building interior were tested for methane and measured 0.2 % methane from the manholes and 'none' inside the building.

Summary of Correspondence

2/6/02	Mr. Moskowitz's letter requesting RWQCB's action.
2/8/02	RWQCB's letter requesting immediate response.
2/8/02	EO's meeting with Santa Fe Springs Fire Chief and site inspection.
2/13/02	SFS Fire Chief letter regarding "0" methane detection.
2/13/02	Mr. Isola's letter.
2/14/02	Meeting with CENCO including Mr. Isola.
2/15/02	CENCO submitted work plan.
2/18/02	CENCO submitted response letter.
3/11/02	Mr. Moskowitz's letter requesting update.

3/12/02	EO's letter to Mr. Moskowitz for update.
3/12/02	EO's approval on CENCO's 2/15/02 workplan.
3/15/02	RWQCB's approval letter for CENCO's 2/15/02 work plan is being reviewed.
3/15/02	RWQCB's response letter to 2/6/02 Mr. Moskowitz letter is being reviewed.
4/30/02	CENCO submitted assessment report.
5/6/02	Mr. Moskowitz's letter stating RWQCB's actions were inadequate and requesting issuance of a CAO
7/3/02	letter to Moskowitz

Administrative Record
No. 22

Winston H. Hickox
Secretary for Environmental Protection

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

July 3, 2002

Mr. Joel S. Moskowitz, Esq.
Moskowitz, Brestoff, Winston & Blinderman LLP
1880 Century Park East, Suite 350
Los Angeles, CA 90067

CERTIFIED MAIL
Return Receipt Requested
Claim No. 7000 0520 0025 4129 8791

REQUEST FOR REGIONAL BOARD ACTION – CENCO REFINERY, 12345 LAKELAND ROAD, SANTA FE SPRINGS (CLEANUP AND ABATEMENT ORDER NO. 97-118, SLIC NO. 318A)

Dear Mr. Moskowitz:

We have received your letter of May 6, 2002 (Letter) requesting that *"The Regional Board issue a Cleanup and Abatement Order to CENCO Refining Company (CENCO) directing CENCO to immediately come onto the property of Pacific Distribution Center Norwalk, LLC. (PDC) and to abate the high levels of methane thereon..."* and *"... further direct CENCO to promptly characterize the subject methane plume and to thereafter prevent further methane from reaching the property of PDC..."* Your Letter also states regarding our actions taken per your February 6, 2002 letter, as described in our letter to you dated March 12, 2002, that *"...these actions to be inadequate to address the extremely high and increasing levels of methane migrating from the Cenco Refinery to PDC's property."*

This Regional Board issued Cleanup and Abatement Order (CAO) No. 97-118 to CENCO on August 25, 1997. Provision 1 of CAO No. 97-118 requires cleanup and abatement of on-site and off-site soil and groundwater contamination originating from the Cenco Refinery and Lakeland Property. In our letter dated February 8, 2002 (copy attached) addressed to CENCO, we required CENCO's immediate response per CAO No. 97-118 regarding your statements that methane problems exist at the property of PDC. We provided a copy of this letter to you previously.

As described in our March 12, 2002 letter to you, CENCO performed a characterization work plan for methane in the vadose zone per our February 8, 2002 request. Subsequently, CENCO submitted their assessment report, entitled "Status Update – Characterization of Vadose Zone Methane, Cenco Refining Company, Santa Fe Springs, CA" and dated April 30, 2002. This report provided an update on the activities taken to address the source, extent and potential

hazards associated with elevated levels of methane in the vadose zone near the Cenco Refinery. We are still in the process of reviewing the above assessment report because additional information from the City of Santa Fe Springs and Division of Oil and Gas regarding the 'methane zone' is necessary in order to complete our review. However, based on the investigation performed by CENCO to date, it is not clear whether soil gas migrating from the Cenco Refinery is causing the methane problems you claim exist at the property of PDC. It was stated in the CENCO's assessment report that there are several oil/gas wells located on or near the property of PDC where elevated methane have been detected from the shallow soil vapor monitoring wells. Therefore, we are requesting any information you have indicating that the migration of methane from the Cenco Refinery has caused the detection of elevated methane from the soil vapor monitoring well SV9 located at the property of PDC. Please submit your technical information to this Regional Board by **August 5, 2002,** before we complete our review of CENCO's assessment report.

Please call Mr. John Geroch at (213) 576-6737 or Mr. Paul Cho at (213) 576-6721 if you have any questions.

Sincerely,

Dennis A. Dickerson
Executive Officer

Enclosure

cc: Sayaren Amir, Department of Toxic Substances Control
David Klunk, City of Santa Fe Springs, Headquarters Fire Station
Fredrick Latham, City Manager, City of Santa Fe Springs
Larry Brown, SCAQMD, Manager of Air Toxic Unit
Michael Barranco, CENCO Refining Company
Mark Miller, Robertson Properties Group
Sabrina Burton, Robertson Properties Group

Administrative Record
No. 23

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

TRANSMITTAL LETTER

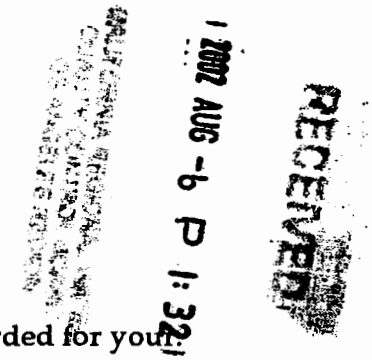
Date: August 6, 2002

To: Paul Cho
California Regional Water Quality Control Board
Los Angeles Region

From: R. Glenn Stillman – Principal Engineer

Project №: 48115W5

Re: RESPONSE DOCUMENT
CENCO Refinery
12345 E. Lakeland Road
Santa Fe Springs, CA



1 copy of the subject document is being forwarded for your:

Review and comment ☐ Signature ☐ Files ■

Thank you.

Alaska Office
907 • 479-9555
P.O. Box 81904
Fairbanks, AK 99708

California Office
714 • 897-2733
Fax 714 • 897-0031
P.O. Box 5365
Garden Grove, CA 92846

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

FACSIMILE TRANSMITTAL

Date: August 4, 2002 Time: 11:26 PST

To: Dennis Dickerson - RWQCB

Fax №: ~~(213) 576-6640~~ Raj, Harris 576-6625 (213) 576-6612

From: R. Glenn Stillman

Project № 48115W5

This form plus 36 page(s).

Re: Response Document
Cenco Refinery
12345 E. Lakeland Road
Santa Fe Springs, CA

This is being resent, as I could not verify if it was all received on Friday. Hard copy to follow in mail.

Alaska Office
907 • 479-9555
P.O. Box 81904
Fairbanks, Alaska 99708

California Office
Fax 714 • 897-0031
P.O. Box 5365
Garden Grove, CA 92846

IF YOU HAVE TROUBLE RECEIVING THIS TRANSACTION OR DID NOT RECEIVE THE TOTAL NUMBER OF PAGES LISTED, PLEASE CALL (714) 897-2733 ext. 200.

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

FACSIMILE TRANSMITTAL

Date: August 2, 2002 **Time:** 16:39 PST

To: Dennis A. Dickerson – Executive Officer
California Regional Water Quality Control
Board – Los Angeles

Fax №: (213) 576-6640

From: Andrea for R. Glenn Stillman

Project № 48115W5

This form plus 34 **page(s).**

Re: Response Document
CENCO Refinery
12345 E. Lakeland Road
Santa Fe Springs, CA

Alaska Office
907 • 479-9555
P.O. Box 81904
Fairbanks, Alaska 99708

California Office
Fax 714 • 897-0031
P.O. Box 5365
Garden Grove, CA 92846

IF YOU HAVE TROUBLE RECEIVING THIS TRANSACTION OR DID NOT RECEIVE THE TOTAL NUMBER OF PAGES LISTED, PLEASE CALL (714) 897-2733 ext. 200.

ALASKA PETROLEUM
ENVIRONMENTAL
ENGINEERING

July 30, 2002

via Facsimile and U. S. Mail

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Attn: Dennis A. Dickerson - Executive Officer

Re: CENCO Refinery
12345 E. Lakeland Road
Santa Fe Springs, CA
(Cleanup and Abatement Order No. 97-118, SLIC NO. 318A)

Dear Mr. Dickerson:

Pursuant to the request of Joel S. Moskowitz, Esq. and on behalf of Pacific Distribution Center Norwalk, LLC ("PDC"), the following discussion is our initial response to your July 3rd letter. Therein you requested that the Regional Water Quality Control Board ("Regional Water Board") be provided "any information ... indicating that the migration of methane from the Cenco Refinery has caused the detection of elevated methane from the soil vapor monitoring well SV-9 located at the property of PDC". In addition, you relayed that in the April 30th CENCO methane assessment report it was indicated that there are "several oil/gas wells located on or near the property of PDC where elevated methane have been detected from the shallow soil vapor monitoring wells."

Discussion

Methane/Fuel Products

The elevated methane concentrations detected in SV-9 at 10 and 20 feet below ground surface (bgs) is not the only issue regarding our contention that CENCO has impacted the regional area. This issue is supported by the documentation contained in *Attachment 1* which was excerpted from the *Alaska Petroleum Environmental Engineering, Inc.* (*Alaska Petroleum*) September 2001 Soil Gas Investigation Report.

Alaska Office
907-479-9555
P.O. Box 81904
Fairbanks, Alaska 99708

California Office
714-897-2733
FAX 714-897-0031
P.O. Box 5365
Garden Grove, CA 92846

This attachment contains the analytical reports from three sampling events wherein soil vapor samples were analyzed for methane as well as fuel hydrocarbons. Hydrocarbon analysis was requested, as moderate to strong gasoline odors were noted when the sample chamber was opened after the samples were collected in Tedlar bags. Fuel hydrocarbons, characterized as gasoline and diesel, were detected in concentrations up to almost 21,000 parts per million (ppm). In addition, benzene, toluene, xylenes, and ethylbenzene (BTX&E) were also detected in the ppm range. The PDC property was the location of a drive-in theatre for decades, whereon there was no documented usage of fuel products.

For the last 20 years, I have worked in the environmental and "upstream" petroleum industries (Production/Operations and Reservoir Engineering). Gasoline/diesel and its components (e.g., BTX&E) do not naturally occur in crude oil; these components are generated from the refining process. Furthermore, significant amounts of "free" product (i.e., gasoline) was measured in groundwater monitoring wells located on the immediately adjacent Metropolitan State Hospital property. Two groundwater monitoring wells (MW-600 and - 600A) are located immediate adjacent to the PDC property line. It is our contention that the free product and its degradation and subsequent migration is the primary cause of the elevated concentrations of methane/fuel product that have been detected in the soil vapor monitoring wells. The groundwater contaminant plume in this area has been solely attributed to the refinery.

In January 1999, 4.12 feet of free product was measured in MW-600, after which it was abandoned for, as of yet, undetermined reasons. MW-600A was drilled as a "replacement" well. In July 2001, 0.56 feet of free product was measured in this well. It is my understanding that the free product thickness has increased significantly during the last sample event. Information pertaining to these wells is contained in ***Attachment 2.***

Oil Wells

Based upon the California Division of Oil, Gas, and Geothermal (DOGGR) records, two oil production wells were/may have been located on the PDC property. Industrial Oil Syn. No. 2 - "22" was encountered during site grading in preparation to construct the existing building. The well is located about 10 feet inside the building on its southwest side. Information pertaining to the well abandonment and oil well venting is contained in ***Attachment 3.*** *Alaska Petroleum* will forward a copy of the final DOGGR

documentation upon receipt from PDC. To date, no elevated concentrations of methane have been detected on this side of the building.

The other well (Gilbert Petroleum Interests, Inc. - "1") is depicted on the DOGGR well location map as being at the northeast corner of the PDC property. While a "Notice of Intent to Drill New Well" was filed in 1923, evaluation of available information by DOGGR staff and myself concluded that the well was never drilled. In 1998, a large excavation was advanced where the DOGGR files indicated that the proposed well was to be drilled. The excavation extended to a depth of almost 30 feet bgs with about an 100 foot radius at the surface; no well was encountered.

Closing Remarks

The results of CENCO's preliminary methane assessment study are inconclusive. As stated above, it is still our contention that the free product and its degradation and subsequent migration, is the primary cause of the elevated concentrations of methane that has been detected near SV-9. As such, further investigation of the regional area and subsequent remediation should be conducted by CENCO. Much of this additional study/remedial efforts are already required pursuant to CAO 97-118 [Order #1, 2(b)(1) and 2(e)].

Alaska Petroleum will be scheduling the quarterly monitoring in the next few weeks. Messrs. Geroch and Cho will to contacted to inquire if either wants to be present. If you or any of your staff have any questions or require any additional information, please do not hesitate to contact me at extension 207.

Cordially,

R. Glenn Stillman
Principal Engineer

RGS/kae

c: Sabrina Sincer-Burton – Robertson Properties Group
Joel S. Moskowitz, Esq. – Moskowitz, Brestoff, Winston & Blinderman, LLP

Attachment 1

SOIL GAS INVESTIGATION REPORT
Second – Third Quarter 2001 (7 - 8th Sampling Event)

Pacific Distribution Center
11224 S. Norwalk Boulevard
Santa Fe Springs, CA

Submitted To:

City of Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670-4619

and

City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670-3658

Prepared For:

Moskowitz, Brestoff, Winston & Blinderman, LLP
1880 Century Park East, Suite 350
Los Angeles, CA 90067

Prepared By:

Alaska Petroleum Environmental Engineering, Inc.
12802 Valley View Street, Suite 9
Post Office Box 5365
Garden Grove, CA 92846
September 2001

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

04-24-2001

Mr. Glenn Stillman
Alaska Petroleum Environmental Engineering
P.O. Box 5365
Garden Grove, CA 92846

Project: 48115 W3
Project Site: Pacific Distribution Center.
Sample Date: 03-16-2001
Lab Job No.: AD10386

Dear Mr. Stillman:

Enclosed please find the analytical report for the samples received by STS Environmental Laboratories on 03-16-2001 and analyzed for the additional parameters:

EPA 8015M (Gasoline)/8021(BTEX,MTBE)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by the CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

Southland Technical Services, Inc.

Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

04-24-2001

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10386
Project:	48115 W3		
Project Site:	Pacific Distribution Center.	Date Sampled:	03-16-2001
Matrix:	Vapor Sample in Tedlar Bag	Date Received:	03-16-2001
Batch No.:	AD19-GV	Date Analyzed:	04-19-2001

EPA Method 8021(BTEX, MTBE)/8015M (Gasoline)
Reporting Units: µL/L (ppm-Vol)

Sample ID	Lab ID	DF	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Gasoline Range TPH*
Method Detect. Limit (MDL)			0.25	0.14	0.12	0.11	0.21	13
Method Blank		1	ND	ND	ND	ND	ND	ND
SV9-10	AD0386-1	5	115	54.1	11.7	3.34	9.13	10,100
SV9-20	AD0386-2	5	122	131	18.5	8.1	34.1	16,200

* Gasoline Range TPH are petroleum hydrocarbons in carbon range C4-C12.

DF: Dilution Factor (**DF × MDL = Reporting Limit** for the sample).

ND: Not Detected (at the specified limit).

Checked & approved by:

Roger Wang, Ph.D.
Laboratory Director

STS

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

04-24-2001

EPA 8021
Batch QA/QC Report

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10386
Project:	48115 W3		
Matrix:	Vapor Sample in Tedlar Bag	Lab Sample ID:	AD0386-2
Batch No.:	AD19-GV	Date Analyzed:	04-19-2001

I. Sample/Sample Dup Report
Reporting Units: µL/L (ppm-Vol)

Analyte	MB	Sample Conc.	Sample Duplicate	% RPD	%RPD Accept. Limit
MTBE	ND	122	119	2.5	30
Benzene	ND	131	124	5.5	30
Toluene	ND	18.5	16.6	10.8	30
Ethyl Benzene	ND	8.1	10.9	29.5	30
Total Xylenes	ND	34.1	29.2	15.5	30
Gasoline Range TPH	ND	16,200	14,000	14.6	30

II. LCS Result
Unit: ppb

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
Benzene	17.0	20	85.0	80-120
Toluene	19.0	20	95.0	80-120

ND: Not Detected

CHAIN OF CUSTODY

ALASKA PETROLEUM ENVIRONMENTAL ENGINEERING

P.O. BOX 5365
GARDEN GROVE
CALIFORNIA
92846-0365
(714) 837-2733
FAX (714) 897-0031

P.O. BOX 81904
FAIRBANKS
ALASKA 99705
(907) 479-9555

TURNAROUND TIME: Fax results when available

P/O

PROJECT NUMBER	PROJECT NAME	SAMPLERS: (SIGNATURE)
8115W3	Pacific Distribution Center	[signature]

SAMPLE ID	DATE	TIME	SPECIAL INSTRUCTIONS TO LABORATORY	TYPE: LIQUID/SOLID / Gas	TYPE: CLASS/PLASTICS/BRASS/SS	FUEL 8015 – M/E	PETROLEUM HC 418.1	BTXE 8020	VOLATILE ORGANICS 624/8240	EXTRACTABLE ORGANICS 625/8270	CCR METALS TOTAL	OTHER: Astm D1946 Methane	
9-10	3/16/01	1330		X								X	
19-10	3/16/01	1332		X								X	
			Mail back bags w/ report		Tedlar bags								

Total Number of containers: 2

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	3/16/01 1345				
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)

METHOD OF SHIPMENT:	SHIPPED BY: (Signature)	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
			[signature] 525	3-16-01

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

07-09-2001

Mr. Glenn Stillman
Alaska Petroleum Environmental Engineering
P.O. Box 5365
Garden Grove, CA 92846

Project: 28115 W3
Project Site: Pacific Distribution Center.
Sample Date: 06-11-2001
Lab Job No.: AD10651

Dear Mr. Stillman:

Enclosed please find the analytical report for the samples received by STS Environmental Laboratories on 06-11-2001 and analyzed for the following parameters:

Methane (by GC/TCD)
EPA 8260B (VOCs by GC/MS)
EPA 8015M (Gasoline & Diesel)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by the CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

06-19-2001

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10651
Project:	28115 W3		
Project Site:	Pacific Distribution Center.	Date Sampled:	06-11-2001
Matrix:	Vapor Sample in Tedlar Bag	Date Received:	06-11-2001
Batch No.:	AF11-GV/EF12-DV	Date Analyzed:	06-11/12-2001

EPA Method 8015M (Gasoline/Diesel)
Reporting Units: µL/L (ppm-Vol)

Sample ID	Lab ID	Gasoline Range TPH (C4-C12)	Diesel Range TPH (C12-C22)
Reporting Limit		13	100
Method Blank		ND	ND
SV 8-10	AD0651-1	393	ND
SV 8-20	AD0651-2	1,610	ND
SV 9-10	AD0651-3	10,500	ND
SV 9-20	AD0651-4	17,700	ND

ND: Not Detected (at the specified limit).

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

06-19-2001

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10651
Project:	28115 W3		
Project Site:	Pacific Distribution Center.	Date Sampled:	06-11-2001
Matrix:	Vapor Sample in Tedlar Bag	Date Received:	06-11-2001
Batch No.:	FF12-A1	Date Analyzed:	06-12-2001

Methane (CH_4) by GC/TCD
Reporting Units: Percent (%)

Sample ID	Lab ID	Methane (CH_4)	Reporting Limits
Method Blank		ND	0.01 %
SV 8-10	AD0651-1	1.2%	0.01 %
SV 8-20	AD0651-2	2.3%	0.01 %
SV 9-10	AD0651-3	15.7%	0.01 %
SV 9-20	AD0651-4	28.0%	0.01 %

ND: Not Detected (at the specified limit)

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

Client: Alaska Petroleum Environmental Engineering | Lab Job No.: AD10651 | Date Reported:07-09-2001
Project:. 28115 W3 | Matrix: Vapor | Date Sampled: 06-11-2001

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µL/L (ppm-Vol)

DATE ANALYZED		06-11-01	06-11-01	06-11-01	06-11-01	06-11-01	
		1	1	1	5	5	
LAB SAMPLE I.D.			AD0651-1	AD0651-2	AD0651-3	AD0651-4	
CLIENT SAMPLE I.D.			SV8-10	SV8-20	SV9-10	SV9-20	
COMPOUND	MDL	MB					
Dichlorodifluoromethane	1.9	ND	ND	ND	ND	ND	
Chloromethane	4.4	ND	ND	ND	ND	ND	
Vinyl Chloride	1.8	ND	ND	ND	ND	ND	
Bromomethane	2.4	ND	ND	ND	ND	ND	
Chloroethane	3.5	ND	ND	ND	ND	ND	
Trichlorofluoromethane	1.6	ND	ND	ND	ND	ND	
1,1-Dichloroethene	1.1	ND	ND	ND	ND	ND	
Iodomethane	0.8	ND	ND	ND	ND	ND	
Methylene Chloride	1.3	ND	ND	ND	ND	ND	
trans-1,2-Dichloroethene	1.2	ND	ND	ND	ND	ND	
1,1-Dichloroethane	1.1	ND	ND	ND	ND	ND	
2,2-Dichloropropane	1.0	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethene	1.2	ND	ND	ND	ND	ND	
Bromochloromethane	0.7	ND	ND	ND	ND	ND	
Chloroform	0.9	ND	ND	ND	ND	ND	
1,2-Dichloroethane	1.1	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	0.9	ND	ND	ND	ND	ND	
Carbon tetrachloride	0.7	ND	ND	ND	ND	ND	
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND	
Benzene	0.3	ND	ND	2.5	9.6	63.8	
Trichloroethene	0.9	ND	ND	ND	ND	ND	
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND	
Bromodichloromethane	0.7	ND	ND	ND	ND	ND	
Dibromomethane	1.0	ND	ND	ND	ND	ND	
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	
1,1,2-Trichloroethane	0.9	ND	ND	ND	ND	ND	
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND	
Dibromochloromethane	0.5	ND	ND	ND	ND	ND	
2-Chloroethylvinyl ether	2.1	ND	ND	ND	ND	ND	
Bromoform	0.9	ND	ND	ND	ND	ND	
Isopropylbenzene	1.0	ND	ND	ND	ND	ND	
Bromobenzene	0.7	ND	ND	ND	ND	ND	

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

Client: Alaska Petroleum Environmental Engineering Lab Job No.: AD10651 Date Reported:07-09-2001

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: µL/L (ppm-Vol)

COMPOUND	MDL	MB	SV8-10	SV8-20	SV9-10	SV9-20	
Toluene	0.3	ND	ND	ND	ND	ND	
Tetrachloroethene	0.7	ND	ND	ND	ND	ND	
1,2-Dibromoethane(EDB)	0.6	ND	ND	ND	ND	ND	
Chlorobenzene	1.0	ND	ND	ND	ND	ND	
1,1,1,2-Tetrachloroethan	0.7	ND	ND	ND	ND	ND	
Ethylbenzene	0.2	ND	ND	ND	ND	ND	
Total Xylenes	0.4	ND	ND	ND	ND	ND	
Styrene	1.1	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethan	0.7	ND	ND	ND	ND	ND	
1,2,3-Trichloropropane	0.8	ND	ND	ND	ND	ND	
n-Propylbenzene	1.0	ND	ND	ND	ND	ND	
2-Chlorotoluene	0.9	ND	ND	ND	ND	ND	
4-Chlorotoluene	0.9	ND	ND	ND	ND	ND	
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	
tert-Butylbenzene	0.9	ND	ND	ND	ND	ND	
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	
Sec-Butylbenzene	0.9	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	0.8	ND	ND	ND	ND	ND	
p-Isopropyltoluene	0.9	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	0.8	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	0.8	ND	ND	ND	ND	ND	
n-Butylbenzene	0.9	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	0.7	ND	ND	ND	ND	ND	
1,2-Dibromo-3-Chloropropane	0.5	ND	ND	ND	ND	ND	
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND	
Naphthalene	0.9	ND	ND	ND	ND	ND	
1,2,3-Trichlorobenzene	0.7	ND	ND	ND	ND	ND	
Acetone	7.8	ND	ND	ND	ND	ND	
2-Butanone (MEK)	6.2	ND	ND	ND	ND	ND	
Carbon disulfide	4.6	ND	ND	ND	ND	ND	
4-Methyl-2-pentanone	4.6	ND	ND	ND	ND	ND	
2-Hexanone	4.6	ND	ND	ND	ND	ND	
Vinyl Acetate	5.2	ND	ND	ND	ND	ND	
ETBE	0.22	ND	ND	ND	ND	ND	
DIPE	0.22	ND	ND	ND	ND	ND	
TAME	0.22	ND	ND	ND	ND	ND	
T-Butyl Alcohol	3.03	ND	ND	ND	ND	ND	
MTBE	0.25	ND	ND	ND	ND	ND	

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected (below DF × MDL).

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

07-09-2001

EPA 8260B
Batch QA/QC Report

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10651
Project:	28115 W3	Lab Sample ID:	AG0648-1
Batch No:	0611-VOC	Date Analyzed:	06-11-2001

I. MS/MSD Report
Unit: ppb

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	14.1	14.5	81.0	78.5	3.1	30	70-130
Benzene	ND	20	24.3	22.0	118.0	120.0	1.7	30	70-130
Trichloro-ethene	ND	20	22.9	20.0	99.0	100.5	1.5	30	70-130
Toluene	ND	20	21.9	20.4	99.0	116.5	16.2	30	70-130
Chlorobenzene	ND	20	24.9	22.8	112.5	123.5	9.3	30	70-130

II. LCS Result
Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	17.6	20.0	88.0	80-120
Benzene	21.2	20.0	106.0	80-120
Trichloro-ethene	19.6	20.0	98.0	80-120
Toluene	20.9	20.0	104.5	80-120
Chlorobenzene	23.0	20.0	115.0	80-120

ND: Not Detected.

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

CH_4 (by GC/TCD)
Batch QA/QC Report

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10651
Project:	28115 W3		
Matrix:	Vapor Sample in Tedlar Bag	Lab Sample ID:	AD0651-4
Batch No.:	FF12-A1	Date Analyzed:	06-12-2001

I. Sample/Sample Dup Report

Reporting Units: Percent (%)

Analyte	MB	Sample Conc.	Sample Duplicate	% RPD	%RPD Accept. Limit
CH_4	ND	28.0	27.8	0.7	30

II. LCS Result

Reporting Units: Percent (%)

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limi
CH_4	4.7	4.5	104.4	80-120

ND: Not Detected.

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

EPA 8015M (TPH)
Batch QA/QC Report

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10651
Project:	28115 W3		
Matrix:	Vapor Sample in Tedlar Bag	Lab Sample ID:	R0647-1
BBatch No.:	AF11-GV	Date Analyzed:	06-11-2001

I. Sample/Sample Dup Report
Reporting Units: µL/L (ppm-Vol)

Analyte	MB	Sample Conc.	Sample Duplicate	% RPD	%RPD Accept. Limit
Gasoline Range TPH	ND	256	278	8.2	30

II. LCS Result
Unit: ppb

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
Gasoline Range TPH	919	1000	91.9	80-120

ND: Not Detected

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

EPA 8015M
Batch QA/QC Report

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10651
Project:	28115 W3	Lab Sample ID:	ST0612-1
Batch No:	EF12-DV	Date Analyzed:	06-12-2001

I. MS/MSD Report
Unit: ppm

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Diesel	ND	200	203	202	101.5	101.0	0.5	30	70-130

II. LCS Result
Unit: ppm

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
Diesel	201	200	100.5	80-120

ND: Not Detected (at the specified limit)

AR10651

ALASKA PETROLEUM ENVIRONMENTAL ENGINEERING

P.O. BOX 5365
GARDEN GROVE
CALIFORNIA
92846-0365
(714) 897-2733
FAX (714) 897-0031

P.O. BOX 81904
FAIRBANKS
ALASKA 99705
(907) 479-9555

TURNAROUND TIME:

P/Q: Fax results when available

PROJECT NUMBER: 781151N3

PROJECT NAME: Pacific Distribution Center

SAMPLERS: (SIGNATURE) [signature]

TYPE: LIQUID/SOLID (air); GLASS/PLASTICS/BRASS/SS

ANALYSIS: FUEL 8015 – M/E (Carbon-chain); PETROLEUM HC 418.1; BTXE 8020; VOLATILE ORGANICS 624/8240; EXTRACTABLE ORGANICS 625/8270; CCR METALS TOTAL

OTHER: 8260B including oxygenates

SAMPLE ID	DATE	TIME	SPECIAL INSTRUCTIONS TO LABORATORY	LIQUID/SOLID	GLASS/PLASTICS/BRASS/SS	FUEL 8015 – M/E	PETROLEUM HC 418.1	BTXE 8020	VOLATILE ORGANICS 624/8240	EXTRACTABLE ORGANICS 625/8270	CCR METALS TOTAL	8260B including oxygenates	
SV8-10	6/11/01	1338		X		X						X	
SV8-20		1342				X						X	
SV9-10		1330				X						X	
SV9-20		1334				X						X	
			return Tedlar bag										
	6/11/01			X									

Total Number of containers: 4

RELENQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	6/11/01 1408				

RELENQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)

METHOD OF SHIPMENT:	SHIPPED BY: (Signature)	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
			[signature]	6-11-01

CHAIN OF CUSTODY

A010651

ALASKA PETROLEUM ENVIRONMENTAL ENGINEERING

P.O. BOX 5365
GARDEN GROVE
CALIFORNIA
92846-0365
(714) 897-2733
FAX (714) 897-0031

P.O. BOX 81904
FAIRBANKS
ALASKA 99705
(907) 479-9555

TURNAROUND TIME:

P/Q Fax results when available

PROJECT NUMBER	PROJECT NAME	SAMPLERS: (SIGNATURE)
4811603	Pacific Distribution Center	[signature]

SAMPLE ID	DATE	TIME	SPECIAL INSTRUCTIONS TO LABORATORY	TYPE: LIQUID/SOLID (gas)	TYPE: GLASS/PLASTICS/BRASS/SS	ANALYSIS: FUEL 8015 – M/E	ANALYSIS: PETROLEUM HC 418.1	ANALYSIS: BTXE 8020	ANALYSIS: VOLATILE ORGANICS 624/8240	ANALYSIS: EXTRACTABLE ORGANICS 625/8270	ANALYSIS: CCR METALS TOTAL	OTHER: ASTM D 1946 Helium	OTHER
8-10	6/11/01	1338	Return Tedlar bags	X								X	
8-20		1342											
VG-10		1330											
VG-20		1334											
	6/11/01			X								X	

Total Number of containers: 4

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	6/11/01 1400				
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)

METHOD OF SHIPMENT:	SHIPPED BY: (Signature)	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
			[signature]	6-11-01

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

09-14-2001

Mr. Glenn Stillman
Alaska Petroleum Environmental Engineering
P.O. Box 5365
Garden Grove, CA 92846

Project: 28115 W3
Project Site: Pacific Distribution Center.
Sample Date: 09-05-2001
Lab Job No.: AD10907

Dear Mr. Stillman:

Enclosed please find the analytical report for the samples received by STS Environmental Laboratories on 09-05-2001 and analyzed for the following parameters:

Methane (by GC/TCD)
EPA 8260B (VOCs by GC/MS)
EPA 8015M (Gasoline)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by the CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

Southland Technical Services, Inc.

Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

09-14-2001

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10907
Project:	28115 W3		
Project Site:	Pacific Distribution Center.	Date Sampled:	09-05-2001
Matrix:	Vapor Sample in Tedlar Bag	Date Received:	09-05-2001
Batch No.:	FI05-A1	Date Analyzed:	09-05-2001

Methane (CH_4) by GC/TCD

Reporting Units: Percent (%)

Sample ID	Lab ID	Methane (CH_4)	Reporting Limits
Method Blank		ND	0.01 %
SV 9-10	AD0907-1	9.64%	0.01 %
SV 9-20	AD0907-2	26.4%	0.01 %

ND: Not Detected (at the specified limit)

Southland Technical Services, Inc.
Environmental Laboratories

1 Telegraph Road, Suite L
ntebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

09-14-2001

Client:	Alaska Petroleum Environmental Engineering	Lab Job No.:	AD10907
Project:	28115 W3		
Project Site:	Pacific Distribution Center.	Date Sampled:	09-05-2001
Matrix:	Vapor Sample in Tedlar Bag	Date Received:	09-05-2001
Batch No.:	AI05-DV	Date Analyzed:	09-05-2001

EPA Method 8015M (Gasoline)
Reporting Units: µL/L (ppm-Vol)

Sample ID	Lab ID	Gasoline Range TPH (C4-C12)	Reporting Limit
Method Blank		ND	13
SV 9-10	AD0907-1	3,870	13
SV 9-20	AD0907-2	20,200	13

ND: Not Detected (at the specified limit).

Southland Technical Services, Inc.
Environmental Laboratories

7801 Telegraph Road, Suite L
Montebello, CA 90640

Phone (323) 888-0728
Fax (323) 888-1509

Client: Alaska Petroleum Environmental Engineering | Lab Job No.: AD10907 | Date Reported:09-14-2001
Project:. 28115 W3 | Matrix: Vapor | Date Sampled: 09-05-2001

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µL/L (ppm-Vol)

DATE ANALYZED		09-05-01	09-05-01	09-05-01			
		1	2.5	5			
LAB SAMPLE I.D.			AD0907-1	AD0907-2			
CLIENT SAMPLE I.D.			SV9-10	SV9-20			
COMPOUND	MDL	MB					
Dichlorodifluoromethane	1.9	ND	ND	ND			
Chloromethane	4.4	ND	ND	ND			
Vinyl Chloride	1.8	ND	ND	ND			
Bromomethane	2.4	ND	ND	ND			
Chloroethane	3.5	ND	ND	ND			
Trichlorofluoromethane	1.6	ND	ND	ND			
1,1-Dichloroethene	1.1	ND	ND	ND			
Iodomethane	0.8	ND	ND	ND			
Methylene Chloride	1.3	ND	ND	ND			
trans-1,2-Dichloroethene	1.2	ND	ND	ND			
1,1-Dichloroethane	1.1	ND	ND	ND			
2,2-Dichloropropane	1.0	ND	ND	ND			
cis-1,2-Dichloroethene	1.2	ND	ND	ND			
Bromochloromethane	0.7	ND	ND	ND			
Chloroform	0.9	ND	ND	ND			
1,2-Dichloroethane	1.1	ND	ND	ND			
1,1,1-Trichloroethane	0.9	ND	ND	ND			
Carbon tetrachloride	0.7	ND	ND	ND			
1,1-Dichloropropene	1.0	ND	ND	ND			
Benzene	0.3	ND	ND	40.4			
Trichloroethene	0.9	ND	ND	ND			
1,2-Dichloropropane	1.0	ND	ND	ND			
Bromodichloromethane	0.7	ND	ND	ND			
Dibromomethane	1.0	ND	ND	ND			
trans-1,3-Dichloropropene	1.0	ND	ND	ND			
cis-1,3-Dichloropropene	1.0	ND	ND	ND			
1,1,2-Trichloroethane	0.9	ND	ND	ND			
1,3-Dichloropropane	1.0	ND	ND	ND			
Dibromochloromethane	0.5	ND	ND	ND			
2-Chloroethylvinyl ether	2.1	ND	ND	ND			
Bromoform	0.9	ND	ND	ND			
Isopropylbenzene	1.0	ND	ND	ND			
Bromobenzene	0.7	ND	ND	ND			

Attachment 2

CENCO Refining Company
12345 Lakeland Road P.O. Box 2108 Santa Fe Springs, CA 90670-0180 (562) 944-6111 Fax (562) 903-8911

May 14, 2002

Mr. Paul Cho
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

SLIC # 0318A
Pc

Submittal of Semi-Annual Groundwater Monitoring Report for July, 2001 Monitoring Event—CENCO Refining Company, Santa Fe Springs (SLIC 318A)

Dear Paul,

Enclosed is Versar's report for the July 2001 CENCO groundwater monitoring event. Note that this is a draft report. CENCO planned to send the Board a final report, after corrections, as has been done for the previous monitoring events. However no final report is expected from Versar now.

Our new consultant, TRC, conducted groundwater well monitoring the week of May 6. Unless you wish otherwise, we will schedule the next monitoring event for September or October.

Please call me at (562) 906-4092 if you have any questions.

Sincerely,

Mike Barranco, P.E.
Environmental Coordinator

enclosure

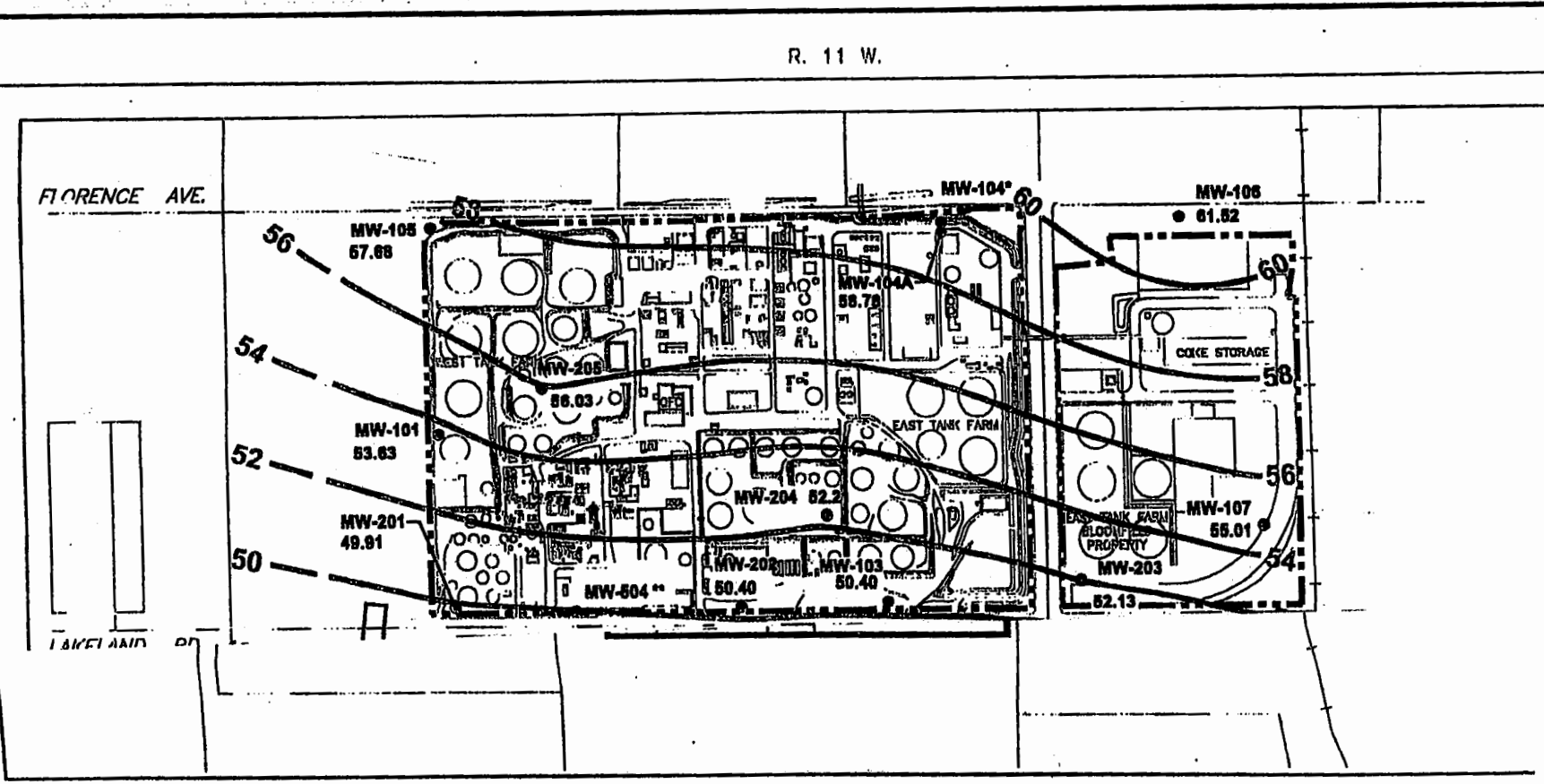
RWQCB-057

2002 MAY 15 P 2:46

TABLE 1
SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS
CENCO REFINING COMPANY
SANTA FE SPRINGS, CALIFORNIA

WELL ID	DATE	TOC ELEVATION (FT-MSL)	DEPTH TO GROUNDWATER (FEET)	DEPTH TO HYDROCARBONS (FEET)	GROUNDWATER ELEVATION [1] (FT-MSL)	HYDROCARBON THICKNESS (FEET)
MW-600 (cont.) (ABANDONED)	Sep-91	120.05	89.64	88.76	31.08	0.88
	Dec-91	120.05	88.91	88.58	31.39	0.33
	Mar-92	120.05	87.09	86.89	33.11	0.20
	Jun-92	120.05	86.26	86.12	33.90	0.14
	Sep-92	120.05	86.90	86.69	33.31	0.21
	Dec-92	120.05	86.02	86.00	34.05	0.02
	Mar-93	120.05	84.63	ND	35.42	-
	May-93	120.05	82.52	ND	37.53	-
	Sep-93	120.05	80.99	80.98	39.07	0.01
	Dec-93	120.05	79.49	79.48	40.57	0.01
	Mar-94	120.05	76.01	76.00	44.05	0.01
	Jun-94	120.05	74.40	74.39	45.66	0.01
	Sep-94	120.05	74.73	74.72	45.33	0.01
	Dec-94	120.05	74.90	74.84	45.20	0.06
	Mar-95	120.05	73.65	73.03	46.87	0.62
	Sep-95	120.05	73.69	73.30	46.66	0.39
	Dec-95	120.05	72.02	ND	48.03	-
	Jul-96	120.05	73.55	70.59	48.75	2.96
	Dec-96	120.05	73.90	71.35	48.09	2.55
	Jan-98	120.05	75.05	69.67	49.09	5.38
	Aug-98	120.05	74.50	72.70	49.09	1.8 [2]
	Jan-99	120.05	73.72	69.60	49.46	4.12
MW-600A	Jul-99	120.34	77.55	77.32	42.96	0.23
	Jan-00	120.34	77.80	76.77	43.32	1.03
	Jul-00	120.34	78.59	78.99	42.05	0.40
	Feb-01	120.34	79.39	79.87	41.31	0.48
	Jul-01	120.34	80.38	79.82	40.39	0.56
MW-601 (ABANDONED)	Sep-90	125.03	96.64	95.89	28.96	0.75
	Dec-90	125.03	97.01	96.52	28.39	0.49
	Mar-91	125.03	94.84	ND	30.19	-
	Jun-91	125.03	94.27	ND	30.76	-
	Sep-91	125.03	94.54	ND	30.49	-
	Dec-91	125.03	94.30	ND	30.73	-
	Mar-92	125.03	92.66	ND	32.37	-
	Jun-92	125.03	91.81	ND	33.22	-
	Sep-92	125.03	92.80	92.28	32.63	0.52
	Dec-92	125.03	91.78	ND	33.25	-
	Mar-93	125.03	90.38	ND	34.65	-
	May-93	125.03	88.35	ND	36.68	-
	Sep-93	125.03	86.76	86.75	38.28	0.01
	Dec-93	125.03	85.36	85.35	39.68	0.01
	Mar-94	125.03	82.01	82.00	43.03	0.01
	Jun-94	125.03	80.30	80.25	44.77	0.05
	Sep-94	125.03	80.50	80.40	44.61	0.10
	Dec-94	125.03	80.65	80.52	44.48	0.13
	Mar-95	125.03	79.08	78.98	46.03	0.10
	Sep-95	125.03	78.36	78.11	46.86	0.25
	Dec-95	125.03	78.07	ND	46.96	-
	Jul-96	125.03	77.03	76.75	48.21	0.28
	Dec-96	125.03	77.57	ND	47.46	-
	Jan-98	125.03	76.79	76.40	48.54	0.39
	Aug-98	125.03	76.29	76.05	48.92	0.24 [2]
	Jan-99	125.03	76.62	75.95	48.92	0.67
MW-601A	Jul-99	126.53	77.39	77.36	49.12	-0.03
	Jan-00	126.53	81.03	ND	45.50	-
	Jul-00	126.53	82.70	82.72	43.85	0.02
	Feb-01	126.53	83.71	83.73	42.84	0.02
	Jul-01	126.53	84.07	ND	42.46	-
MW-603	Jul-96	118.54	72.01	ND	46.53	-
	Dec-96	118.54	72.39	ND	46.15	-
	Jan-98	118.54	71.33	ND	47.21	-
	Aug-98	118.54	71.12	ND	47.42	-
	Jan-99	118.54	77.71	ND	46.83	-
	Jul-99	118.54	72.97	ND	45.57	-
	Jan-00	118.54	76.87	ND	41.67	-
	Jul-00	118.54	78.00	ND	40.54	-
	Feb-01	118.54	78.48	ND	40.06	-
	Jul-01	118.54	79.14	ND	39.40	-

For Notes and explanations see page 11



LEGEND

● MW-606 30.34	MONITORING WELL LOCATION AND GROUNDWATER ELEVATION (ft-msl)
— 46	GROUNDWATER ELEVATION CONTOUR JULY 23, 2001 (ft-msl, DASHED WHERE INFERRED)
(*)	WELL ABANDONED
(**)	GROUNDWATER ELEVATION WAS NOT USED FOR CONTOURING
NAP	NOT APPLICABLE, WELL NOT SURVEYED

	CENCO PROPERTY BOUNDARY
	WALKER PROPERTY BOUNDARY
	FORMER LAKELAND PROPERTY
	METROPOLITAN STATE HOSPITAL
	GROUNDWATER GRADIENT DIRECTION

Versar INC.
7844 Madison Avenue
Suite 167
Fair Oaks, CA 95628
(916) 962-1612

VERSAR JOB NO.: 3917-021

DRAWN / APPROVED: PYM / ST

FILE: P/CENCO/3917-021/CAD/SEP06F2.DWG

GROUNDWATER SURFACE ELEVATIONS
JULY 23, 2001

CENCO REFINING COMPANY
SANTA FE SPRINGS, CALIFORNIA

FIGURE
2

Attachment 3

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CARDS ☐
BOND ☐
OGD114 ☐
OGD121 ☐

RE-Notice of Intention to Abandon Well

File in Duplicate

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon

Well Industrial Oil Syndicate #2-22 **API No.** 037-15765 **Sec.** 7 **T.** 3S **R.** S. B. **B.&M.**

Santa Fe Springs **Field** Los Angeles **County, starting work on** ASAP

The present condition of the well is

1. Total depth: 5358'

2. Complete casing record, with plugs and perforations (present hole):

12½" 45# @ 1,900' w/200 sax
8¼" 36# @ 4,002' w/250 sax

junk: part core barrel (cutter) at 4914'

3. Date last produced or injected:

Additional data for dry hole (show depths)

1. Oil or gas shows: none noted

2. Stratigraphic markers:

3. Formation and age at total depth:

4. Base of freshwater sands: 1,000'

Is this a critical well according to the definition on the reverse side of this form (or on page 2 if you are using the Internet)?

☐ Yes ☐ No

The proposed work is as follows:

1. Drill/clean out as deep as possible.
2. Plug and down squeeze from as deep as possible with Class "G" cement; top of plug to be above 3,800'.
3. Mud hole with clay-based mud with minimum density and gel-shear strength of 72 lb/cu f and 25 lb/100 sq ft., respectively.
4. Place cement plug a minimum of 100' above the Uppermost Hydrocarbon Zone Equivalent (2,100 - 2,000'); cement Class "G".
5. Place cement plug across base of fresh water sands from 1,100-900'; cement Class "G".
6. Place surface plug from 120 - 10' below rough finish grade.
7. Weld steel plate around outer casing; thickness same as casing. Weld well name and API number on top of plate.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address 120 North Robertson Boulevard (Street)

Los Angeles (City) CA (State) 90048-3102 (Zip)

Telephone Number (714) 897-2733 x207 (Designated Agent)
(Area Code) (Number)

P.D.C. Norwalk, LLC. (Name of Operator)

By R. Glenn Stillman, Designated Agent for property owner (Print Name)

(Signature) December 30, 1998 (Date)

Principal Engineer, Alaska Petroleum Environmental Engineerin

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

No. P 198-1153

PERMIT TO CONDUCT WELL OPERATIONS

660 (Field Code)
00 (Area Code)
— (New Pool Code)
— (Old Pool Code)

Glen Stillman
P.D.C. Norwalk, LLC.
120 North Robertson Boulevard
Los Angeles, CA 90048-3102

Cypress, California
December 31, 1998

Your supplementary proposal to abandon well Industrial Oil Syndicate No. 2/Well No. 22, A.P.I. No. 037-15765, Section 7, T. 3S, R. 11W, S.B. B. & M., Santa Fe Springs Field, -- area, -- pool, Los Angeles County, dated 12/30/98, received 12/30/98 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment equivalent to this Division's Class II2M requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from 4052' to 3952'.
4. For the isolation of the oil and gas zones, a cavity shot shall be detonated at 1850' and the well plugged with cement from 1863' to 1750'.
5. For the isolation of the fresh water sands, a cavity shot shall be detonated at 1300' and the well plugged with cement from 1300' to 1200'.
6. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
7. THIS DIVISION SHALL BE NOTIFIED TO:
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the placing, location and hardness of the cement plug from 4052' to 3952'.
   c. Witness the mudding of the hole.
   d. Witness the placing, location and hardness of the cement plug from 1863' to 1750' and from 1300' to 1200'.
   e. Witness the placing, location and hardness of the cement plug from 120' to 10'.
   f. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:

1. This Division does not pass upon your right to enter the property, but merely approves the proposal as conforming to our requirements.
2. Report on Operations (OG 109) (T-Report) and Report of Well Abandonment (OG 159) (Final Letter) will not be released until all records and histories are on file with this Division.
3. The base of the freshwater sands is at 1240'±.
4. A Division witnessed and approved leak test of the surface plug prior to welding on the steel plate at the surface is a requirement of the Construction Site Review process.

DEC:dc
cc: Update
Industrial Oil Syndicate No. 2
NO BOND REQUIRED

William F. Guerard, Jr.
State Oil and Gas Supervisor

Engineer: D. E. Curtis

Phone: 714/816-6847

By J P C Monroe
For R. K. Baker, *Deputy Supervisor*

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG 111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

Operator Glenn Stillman c/o P.D.C. Norwalk, L.L.C. Field Santa Fe Springs County Los Angeles
Well Industrial Oil Syndicate No. 2, Well No. 22 Sec. 7 T. 3 S R. 11 W S B B.&M.
A.P.I. No. 037-15765 Name Terry Simmons (Person submitting report) Title Rig Forman (President, Secretary, or Agent)
Date January 25, 1999 (Month, day, year)

Signature Terry Simmons

Address 120 North Robertson Blvd. Los Angeles, CA. 90048-3102 Telephone Number (714) 897-2733

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Date	
01/06/99	Weld on casing flange. Install B.O.P.E.
01/07/99	Made up 105/8" bit on 4¾" drill collar drilled out cement and wood from surface to 53'. Close well in.
01/08/99	Continue drilling out cement & wood from 53' to 123'. Close well in.
01/11/99	Continue drilling out wood & cleaning out from 123' to 1863' top of 85/8" casing stub. Close well in.
01/12/99	Continue cleaning out from 1863' to 3200' Circulated hole clean. Close well in.
01/13/99	Continue cleaning out from 3200' to 4047'. Circulated hole clean with 72# mud. 421 bbls with tubing at 4037' mix & pump 56 cu.ft. of neat "G" cement. Witnessed by Mel Saw w/ D.O.G. Close well in.
01/14/99	Ran tbg, tag cement at 3881' witnessed by Mel Saw w/ D.O.G. Pull tubing, shot cavity at 1850' w/ tbg @ 1890' mix & pump 180 cu.ft. of "G" cement. Witnessed by Chris McCullough w/ D.O.G. Close well in.
01/18/99	Ran tbg, tag cement @ 1694' witnessed by Dan Dudak w/ D.O.G. Shot cavity @ 1300' w/ tbg @ 1300' mix & pump 155 cu.ft. of neat "G" cement. Witnessed by Mel Saw w/ D.O.G. Close well in.
01/19/99	Ran tbg, tag cement plug @ 1130'. Witnessed by Dan Dudak w/ D.O.G. W/ tbg @ 120' mix & pump neat "G" cement to surface with 100 cu.ft. close B.O.P. squeeze 35 cu.ft. Witnessed by Dan Dudak w/ D.O.G. and City of Santa Fe Springs Fire Department.

SUBMIT IN DUPLICATE

FIRE DEPARTMENT
FIRE ENVIRONMENTAL PROTECTION BUREAU
11300 GREENSTONE AVE., SANTA FE SPRINGS, CA 90670
(310) 944-9713 • FAX (310) 941-1817

POST ON JOB SITE

Name of Facility Pacific [illegible]

Project Address 11204 S Norwalk Blvd. Unit #

Architect/Engineer [illegible] telephone (714) 961-2333

Address

Contractor [illegible] telephone

Address [illegible] CA 9[illegible]

DESCRIPTION OF WORK

[illegible]

FIRE INSPECTION

NOTE: DO NOT OCCUPY BUILDING, ROOMS, ACTIVATE SYSTEMS OR EQUIPMENT UNTIL FINAL INSPECTIONS HAVE BEEN MADE.

NOTIFY THE SANTA FE SPRINGS FIRE PROTECTION BUREAU (944-9713) AT LEAST 24 HOURS BEFORE THE JOB READY FOR INSPECTION. WHEN CALLING, PLEASE GIVE THE OWNER'S NAME, JOB ADDRESS, AND TYPE OF INSPECTIC REQUIRED. **IF INSPECTION IS NOT READY UPON FIRE INSPECTOR'S ARRIVAL YOU MAY BE CHARGED A REINSPECTIC FEE.**

TYPE OF INSPECTION	DATE	INSPECTOR	TYPE OF INSPECTION	DATE	INSPECTOR
FIRE ALARM SYSTEM			**Drying Ovens (Industrial Baking/Drying)**		
Locations			**Tent & Air Supported Structure**		
Installation			**Flow/Powder Coating Equipment**		
Test			**Tenant Improvement (Structure)**		
Final			**Tenant Improvement (Automatic Sprinkler)**		
AUTOMATIC SPRINKLER SYSTEM			**Rough**		
U/G Hydro			**Final**		
U/G Flush			**OIL WELL ABANDONMENT**		
O/H Hydro			50 Foot Top Plug		
Final			Welded Plate		
"H" Occupancy			**SOIL VENTING SYSTEMS**		
Compressed Gas System Test			Excavation		
L.P.G. Tank			Aggregate, Barrier, Piping		
Paint Spray Booth/Electrostatic			Trenching		
Dip Tank			**Gas Detection System**		
Dust Collection System			**High-Piled Combustible Stock**		
Standpipe Wet/Dry			Racks/Draft Curtains/Hose Racks/Smoke Vents		
ON SITE FIRE HYDRANT SYSTEM			**Dry/Wet Chemical Extinguishing System**		
U/G Hydro			**U/G & A/G Tank(s) Removed/Installed**		
Flush			Number of Tanks		
New Construction Final					

REMARKS: witnessed well aband. 50' plug + metal cap

Fred [illegible] 3/99

CONTRACTOR

FIRE DEPARTMENT
FIRE ENVIRONMENTAL PROTECTION BUREAU
11300 GREENSTONE AVE., SANTA FE SPRINGS, CA 90670
(310) 944-9713 • FAX (310) 941-1817

POST ON JOB SITE

Name of Facility Pacific Distribution Center
Project Address 11204 S Norwalk Blvd Unit #
Architect/Engineer Alton Atkinson Env Eng telephone 714-897-2737
Address PO Box 5365 Garden Grove CA 92845
Contractor same telephone
Address

DESCRIPTION OF WORK

Oil well vent fan
Industrial Pit [illegible] # 2 - "2

FIRE INSPECTION

NOTE: DO NOT OCCUPY BUILDING, ROOMS, ACTIVATE SYSTEMS OR EQUIPMENT UNTIL FINAL INSPECTIONS HAVE BEEN MADE.

NOTIFY THE SANTA FE SPRINGS FIRE PROTECTION BUREAU (944-9713) AT LEAST 24 HOURS BEFORE THE JOB READY FOR INSPECTION. WHEN CALLING, PLEASE GIVE THE OWNER'S NAME, JOB ADDRESS, AND TYPE OF INSPECTI REQUIRED. IF INSPECTION IS NOT READY UPON FIRE INSPECTOR'S ARRIVAL YOU MAY BE CHARGED A REINSPECTI FEE.

TYPE OF INSPECTION	DATE	INSPECTOR	TYPE OF INSPECTION	DATE	INSPECTO
FIRE ALARM SYSTEM			Drying Ovens (Industrial Baking/Drying)		
Locations			Tent & Air Supported Structure		
Installation			Flow/Powder Coating Equipment		
Test			Tenant Improvement (Structure)		
Final			Tenant Improvement (Automatic Sprinkler)		
AUTOMATIC SPRINKLER SYSTEM			Rough		
U/G Hydro			Final		
U/G Flush			**OIL WELL ABANDONMENT**		
O/H Hydro			50 Foot Top Plug		
Final			Welded Plate		
"H" Occupancy			**SOIL VENTING SYSTEMS**		
Compressed Gas System Test			Excavation		
L.P.G. Tank			Aggregate, Barrier, Piping		
Paint Spray Booth/Electrostatic			Trenching		
Dip Tank			Gas Detection System		
Dust Collection System			High-Piled Combustible Stock		
Standpipe Wet/Dry			Racks/Draft Curtains/Hose Racks/Smoke Vents		
ON SITE FIRE HYDRANT SYSTEM			Dry/Wet Chemical Extinguishing System		
U/G Hydro			U/G & A/G Tank(s) Removed/Installed		
Flush			Number of Tanks		
New Construction Final					

REMARKS: witness V concrete core placement
witness vent thru vertical wall 4/20/99 FM

CONTRACTOR

ACTIVITY REPORT

TIME : 08/05/2002 15:59

NO.	DATE	TIME	FAX NO./NAME	DURATION	PAGE(S)	RESULT	COMMENT
#02	08/02	14:48	915625951265	51	02	OK	TX ECM
#04	08/02	16:54	912135766640	17:52	34	NG	TX ECM
#05	08/02	17:30	912135766640	01:53	02	NG	TX
	08/02	18:51	M	01:46	02	OK	RX ECM
	08/03	10:33	2 .	35	01	OK	RX
#08	08/05	09:40	919098882120	01:31	03	OK	TX
#07	08/05	09:42	912135766640	30	01	OK	TX ECM
	08/05	10:26		51	03	OK	RX ECM
#09	08/05	11:37	93473829	24	01	OK	TX
	08/05	11:43		03:25	03	OK	RX
	08/05	12:28	323 888 1509	20	01	OK	RX ECM
	08/05	14:13		29	02	OK	RX ECM

BUSY: BUSY/NO RESPONSE
NG : POOR LINE CONDITION
CV : COVERPAGE
CA : CALL BACK MSG
POL : POLLING
RET : RETRIEVAL

TRANSMISSION VERIFICATION REPORT

TIME : 08/02/2002 17:12

DATE,TIME	08/02 16:54
FAX NO./NAME	912135766640
DURATION	00:17:52
PAGE(S)	34
RESULT	NG
MODE	STANDARD ECM

NG : POOR LINE CONDITION

TRANSMISSION VERIFICATION REPORT

TIME : 08/02/2002 17:32

DATE,TIME	08/02 17:30
FAX NO./NAME	912135766640
DURATION	00:01:53
PAGE(S)	02
RESULT	NG
MODE	STANDARD

NG : POOR LINE CONDITION

TRANSMISSION VERIFICATION REPORT

TIME : 08/05/2002 09:43

DATE,TIME	08/05 09:42
FAX NO./NAME	912135766640
DURATION	00:00:30
PAGE(S)	01
RESULT	OK
MODE	STANDARD ECM

Administrative Record
No. 24

GROUND ZERO ANALYSIS, INC.

1714 Main Street
Escalon, California 95320-1927
Telephone: (209) 838-9888
Facsimile: (209) 838-9883

July 31, 2002

Mr. Paul K. Cho
Los Angeles Regional Water Quality Control Board
320 W. Fourth St., Suite 200
Los Angeles, CA 90013

Subject: **STATUS UPDATE - CHARACTERIZATION OF VADOSE ZONE METHANE, CENCO REFINING CO., SANTA FE SPRINGS, CA (SLIC #318A)**

Dear Mr. Cho:

As we discussed during our telephone conversation of July 11, 2002, this letter report provides an update on the activities taken to address the source, extent, hazards and potential mitigation of elevated levels of methane and combustible gases in the vadose zone near the CENCO Refinery in Santa Fe Springs.

As we have previously disclosed to you, CENCO has been sued by the Pacific Distribution Center Norwalk, LLC for damages related to the methane and combustible gas problem in the refinery area. The work we have been performing is focused directly on addressing the allegations of the lawsuit in addition to the issues initially raised in our meeting of February 14, 2002. The work performed to date has included: ambient air monitoring on the refinery property; evaluating potential sources of methane in the affected area; preliminary evaluation of potential methane transport into buildings using an analytical vapor diffusion model, determining the area of vadose zone impacts using existing groundwater monitoring wells and evaluating potential interim or long-term mitigation strategies.

Vapor Monitoring of Ambient Air

On February 28 and March 1, Ground Zero personnel monitored for methane and other gases at and downgradient (south) of the refinery. The purpose of ambient air sampling was to determine if measurable levels of methane are present above ground at the CENCO Refinery. This information was intended to identify conditions that might present a fire or explosion hazard and to assist in evaluating the potential for methane in soil gas at depth to migrate to the surface. The results of this sampling were submitted to your office in our status report of March 15, 2002.

Vapor Diffusion Modeling

Vapor transport analysis was conducted using the Orange County Health Care Agency (OCHCA) Vapor Diffusion Model and the results were presented in previous status reports. The model was initially run with a foundation crack factor of 0.01 cm^2/cm^2 based upon ASTM guidance (E1739-95). We spoke with Mr. Jim Strozier at OCHCA (714) 667-3700 to verify the foundation attenuation factor ("b") used in their analytical model. According to Mr. Strozier, the attenuation factor b represents the crack fraction and that they typically use 0.01 for residential property use and 0.001 for commercial property. The difference is that they want to be more health-conservative for a residential use and the fact that commercial foundation slabs are generally thicker. The March 15, 2002, report used the more conservative residential factor and did not indicate any explosion or health hazards.

Vapor Monitoring of Groundwater Monitoring Wells

The casing vapors in the groundwater monitoring wells were monitored in February 2002 to determine if elevated methane or combustible gas concentrations were present in soil vapor at and immediately above the water table and to evaluate the lateral distribution of methane in this soil interval. The results of this monitoring were presented in the earlier status reports. The results of the monitoring indicated localized point sources for the detected methane. Additionally, methane concentrations did not correlate well with underlying groundwater contaminant concentrations. The well casing sample results show that high concentrations of methane near the water table do not translate into measurable concentrations of methane at the surface. These observations are consistent with localized sources of the observed methane, as discussed below.

Soil Gas Source Evaluation

An evaluation of the source or sources of methane and other gases in the vadose zone has been ongoing using a combination of historical research, agency records review and air photo analysis. Specific data sources that have been researched to date include:

- Division of Oil and Gas files for abandoned oil/gas wells and pipelines on the CENCO, Coaster, Pacific Distribution and State Hospital properties.
- The Santa Fe Springs Fire Department records for other areas of elevated methane.
- Regional Board files for UST's in the area of the Lakeland Property.
- Air photos from several sources that depict the Hospital grounds during the time a landfill was operating.

<u>CA Division of Oil and Gas File Review</u>

A file review was performed at the CA DOG to investigate the status of the numerous oil/gas wells located in the vicinity of the CENCO Refinery, as reported in our April 30 status report. Files were

requested for wells located in the area along and south of Lakeland Boulevard where high methane levels have been detected. Of the files requested a number of them were checked out or could not be found. We have since followed up to gain access to the files for several key wells that were not previously available for review.

The wells in the vicinity of the refinery are quite old (from the 1920's and 1930's) and as such were drilled and abandoned according to far different standards than are acceptable today. The completion depths of these wells ranged from approximately 2000 – 5000 feet. Well operators included Chevron Ring Oil, Exxon, Gilbert Petroleum, Wilshire, Texaco, Union and others.

Due to documented problems in the Santa Fe Springs field and elsewhere, the DOG has determined re-abandonment of these older wells is needed. Generally, wells are required to be re-abandoned whenever new construction or land use changes occur. The basis of this policy is the potential for these wells to leak gas and create explosive conditions such as the situation that occurred in Los Angeles' Fairfax during the 1980s. When oil wells are identified in the planning process for new construction, the Division of Oil and Gas performs a survey to ascertain the need for re-abandonment. Effectively all older wells in the Santa Fe Springs field require re-abandonment to current standards (DOG, verbal communication).

The file reviews have shown that gas was present at high pressures in wells located at and downgradient of the refinery. The data for casing head gas composition in the Santa Fe Springs area indicates it is largely methane and ethane (documented in our April 30, 2002 Status Report).

Each of the wells and their associated sumps may represent a localized or point source of methane and other gases. Our initial review of DOG records showed evidence that at least one well near the refinery had apparent methane discharge. Well Exxon #4 was drilled in 1923 and is located in the north-central portion of the Coaster property (12330-12434 Lakeland Blvd). In 1998 the DOG required re-abandonment of this well and the installation of a venting system as part of the construction on the Coaster property. Methane was detected around the wellhead prior to abandonment. The venting system consists of a vent cone with piping along the building wall that terminates above the roof line. The top of the vent pipe was monitored in April of 1999 and showed a reading of 23% of LEL. The shallow vadose zone monitoring well adjacent to Exxon #4 (MW-6) shows a very high concentration of methane at the 15 foot level whereas wells to the east, west, southeast, southwest and south have methane concentrations that are 1-4 orders of magnitude lower. Other hydrocarbon gases, including propane, butane, pentane, hexane and heptane have been detected in the shallow soil vapors and may be indicative of gasoline or degrading hydrocarbons, as discussed below. Coaster's consultant concluded that the detected vapors were due to the "bacterial decomposition of a biodegraded condensate or other crude oil by-product".

The area of highest methane at the Coaster property is located near another Exxon well (Surbeck #1) that, according to City Fire Department records could not be located. Division of Oil and Gas records that we subsequently obtained show that a Division Engineer could not find the well as it was located on the construction site inspection report. This well was drilled to 4690 feet in 1922 and abandoned by

filling with drilling mud in 1924. The casing was removed in 1952. No methane readings were taken.

A third Exxon well (#5) is located beneath the Coaster building but could also not be located for re-abandonment as requested by DOG. Additionally, another well, Security Oil Syndicate No. 3 #1, is located on or just west of the Coaster property and was reportedly (per Santa Fe Springs Fire) within the street. The well was re-abandoned in 1998, and no gas was detected in the area. This well was originally a dry hole when completed in 1923 and was abandoned by filling with heavy mud in about 1924. The casing was subsequently removed.

During our second file review, records were located for two old wells that are near the southeast corner of Lakeland and Norwalk. These wells, Santa Fe Springs Syndicate No. 2 #1 and #3 are located just north of the Pacific Distribution property and just west of the Coaster Building. SFS No. 2, #1 was drilled in 1924, the casing was subsequently pulled and the well was abandoned with drilling mud in 1924. A letter in the file to the California Mining Bureau indicates the well encountered "heavy gas" that caused the well fluids to overflow and necessitated the installation of blowout prevention equipment. The current condition of this well is unknown. No records for well SFS No. 2, #3 were available from DOG.

There are also several oil/gas wells located on or near the Pacific Distribution property where high levels of methane have been detected in two shallow soil vapor monitoring wells. The two wells (of 9 total) that have detected significant levels of methane are located in the northeastern corner of the property. Just east of the Pacific Distribution site, methane has been detected in an area where the Gilbert Petroleum Interests, Inc. well #1 was located. DOG files do not indicate that the well was abandoned, however, in 1998 an excavation in the area found an "open hole plugged with wood". Soil gas readings of 10% of LEL were recorded. Old wells, including Gilbert Petroleum Corp. #1, Industrial Oil Syndicate No. 4, #42 and Industrial Oil Syndicate No. 2, #22 are also located on or very near the Pacific Distribution site. No data was available at DOG during both our initial and follow-up file reviews for the Gilbert #1 well but we have been able to obtain the files for the two Industrial wells.

Industrial Oil Syndicate No. 4 #22, is located along the south-central portion of the Pacific property and was re-abandoned in 1999 by Pacific Distribution but the records do not indicate whether gas was detected or even tested for. Industrial Oil Syndicate No. 4, #42 is located along the western side of the Pacific Distribution property and was drilled to a depth of 4387 feet in 1922. It was abandoned by filling with drilling mud in 1924. The casing was apparently removed in 1926. There are no records to indicate the current condition of this well.

We also requested Division files for the wells known as Security Oil Syndicate #1 and Triangle Oil Syndicate No. 2 located to the south of the Pacific Distribution property on the grounds of the Metropolitan Hospital. No records were available for either of these wells. We did review records for Triangle Oil Co. #1, which is located in the same general area. TOC #1 was abandoned with drilling mud in 1928; the casing was also removed. The current condition of these wells is unknown.

Santa Fe Springs Fire Department Records Review

Ground Zero personnel met with a representative of the City Planning Department and subsequently reviewed Fire Department files related to the methane zone in Santa Fe Springs. These data were presented in our April 30 2002, Status Report. The files indicate a broad area where elevated methane has been found associated with landfills, sewers, oilfield operations and unknown sources. Mr. Andy Lazaretto indicated that the designation of a "methane zone", as with other areas in the State, is due to the oil field activities. After considerable delay we have obtained a copy of the methane zone map which is being forwarded to your office under separate cover.

One of the larger generators of methane in the City is the Kalico #1 Landfill located southeast of CENCO. Levels up to 10% methane by volume have been detected at sites adjacent to the landfill (Kelly Pipe at 11801 Greenstone).

Regional Board UST files in the CENCO area

Ground Zero previously reviewed a number of files for active or former UST sites in the area south of the refinery as reported in our April 30th Status Report. The files that have been reviewed include:

- 12105 Lakeland - Galaxy Brazing:
- 12247 Lakeland - Torco USA Lubricants
- 12300 Lakeland - Coast Iron and Steel
- 12740 Lakeland -Porvene McKee
- 10840 Norwalk - Charles Godbey (A&B Auto)
- 10924 Norwalk - Wholesale Experts
- 11950 Norwalk - Lakenor
- 11212 Norwalk - Geminis Property Development
- 11400 Norwalk - Metropolitan State Hospital
- 11015 Bloomfield - Adamson Company
- 11240 Bloomfield - Balboa – Pacific
- 11240 Bloomfield - Airco CO_2 Plant
- 11700 Bloomfield -Kelly Pipe
- 11808 Bloomfield - Baker Petrolite (Former Magna Corp.)
- 11832 Bloomfield - S.E. Pipeline
- 11922 Bloomfield - Strecker Construction
- 12222 Florence - Transit Mixed Concrete

The files that were reviewed were not complete and in most cases very little information was available. At many sites tanks were removed with little documentation of site conditions. The following brief summaries compiled from files for sites located just south of the refinery and in the area of elevated hydrocarbon vapors demonstrate the limited information available.

12105 Lakeland, Galaxy Brazing:

- No sample analysis for benzene or MTBE.
- August 25, 1986 - Memo SFSFD witnessing removal of 550 gallon tank.
- December 23, 1987 - Investigation report regarding a 20 by 80 foot surface discharge of hazardous materials along the back property line not related to the UST.

12740 Lakeland, Porvene McKee:

- No sample analysis for gasoline. Samples were only tested for TPH-D although the 1974 installation permit was for a gasoline tank.
- April 3, 1974 - Installation permit for 1000 gallon underground gasoline storage tank.
- October 10, 1989 - Removal of one 1000 gallon UST reported to store diesel although 1974 installation permit indicated storage for gasoline. Tank removal contractor indicated tank to be in "excellent condition". Only one soil sample was analyzed for TPH-D which was below detection limits.
- January 15, 1991 - Received LACPWD closure certification letter.

10924 Norwalk, Wholesale Experts:

- No sample analysis for BTEX.
- September 10, 1984 - Memo SFSFD witnessing removal of 1000 gallon tank manufactured in 1954.

11950 Norwalk, Lakenor:

- Site is on the UST list but the SFSFD has only a 1976 permit fee; no other data available.

11212 Norwalk, Geminis Property Development:

- T,E,X and TPH-G detected, site assessment scheduled for 9/27/99 has not been done.
- May 29, 1998 - Removal of one 3000 gallon gasoline UST. SFSFD inspection notes indicated 100 gallons of liquid spilled when the backhoe ruptured the tank and soil had "obvious contamination". Soil samples from beneath the tank recorded 1200 ppm TPH-G, and T,E,X at 18, 12, and 93 ppb, respectively.

- January 19, 1999 - Initial September 17, 1998 workplan for site assessment was deemed incomplete "bare bones" by the SFSFD.

- May 17, 1999 - Subsequent February 22, 1999 workplan for site assessment to drill and sample three soil borings to a depth of thirty feet was approved.

- September 17, 1999 - Proposed site assessment was to occur but no information is present within the file.

- September 12, 2000 - Phone conversation with Brenda Nelson of SFSFD indicated the no site assessment has been conducted.

11400 Norwalk, Metropolitan State Hospital:

- File could not be located.

11015 Bloomfield, Adamson Company:

- No report of tank removal sample results or contaminated soil removal; UST site was closed by the LACPWD.

- October 22, 1984 - Installation permit for two 10000-gallon gasoline and one 10000 gallon diesel fiberglass USTs.

- September 26, 1991 - Removal of three 10000 USTs indicated by a permit and field notes but no formal report with laboratory results was found in the file.

- June 10, 1992 - A SFSFD note to file reported "contaminated soil has been removed, manifest received, all OK".

- November 25, 1992 - Received LACPWD closure certification letter.

- July 30, 1996 - A LACPWD closure report letter for two areas impacted with TRPH (1425 ppm @5 ft and 7520 ppm @10 ft), not apparently related to gasoline/diesel USTs, which will be reviewed for closure by DTSC.

The contents of the files noted above indicate a number of potential sources for methane or other hydrocarbon vapors. Additional investigation of these sites is warranted.

<u>Review of Air Photos for Metropolitan Hospital</u>

The initial review of air photos of the Hospital in the 1940-1950 timeframe was inconclusive. Review of better quality photography at the Fairchild Collection has been re-scheduled for August.

The presence of a landfill at the Hospital was documented from Los Angeles County Sanitation Department Records and reference to the landfill was also made in City Fire Department records. While the exact location of the landfill is currently unknown it is likely to have been in the northwest corner where undeveloped land is located and where brush/grass has recently been dumped. This is also the area where the two wells with elevated methane on the Pacific Distribution property are located.

Gas Fingerprinting

We propose to defer any detailed fingerprinting of vapor samples until more information is developed on potential contribution from the sources identified above.

Groundwater and Vadose Zone Monitoring

The source evaluation activities and previous well casing vapor sampling do not show a continuous plume of methane in the vadose zone. Rather there appears to be a discontinuous distribution more characteristic of localized or point sources. Additional data is needed around these point sources prior to considering the installation of a gas-monitoring network.

CENCO's June 14, 2002, Semi-Annual Monitoring event included sampling for dissolved methane from 5 monitoring wells. As shown in Table 1 below, the correlation of dissolved methane, dissolved gasoline hydrocarbons and wellhead methane readings is not strong. Additional sampling for dissolved methane will be undertaken during the next groundwater monitoring event, as discussed below.

Table 1.

Well #	Dissolved TPHG (ug/l)	Dissolved CH_4 (mg/l)	LEL Reading % (casing gas)	Methane Reading % (casing gas)
104	100	.257	0	0
205	260	.228	0	0.2
502	25000	7.05	0	0
605	<100	<.001	0	0.2
606	<100	<.001	Not Sampled	Not Sampled

Summary and Recommendations

The characterization and source identification work performed to date has not shown an explosive hazard associated with the elevated concentrations of hydrocarbon vapor in soils at and south of the refinery. Additionally, the data have not shown a strong correlation with known contaminant sources

that may be attributable to CENCO. Potential contributions by CENCO to the vadose zone vapor contamination would include petroleum hydrocarbons degassing from groundwater and/or residual hydrocarbons in soils located on the former Lakeland property. The soil vapor contaminant distribution at and around the Lakeland property is not consistent with those sources as the sole or even primary contributor. The vapor contaminant distribution appears more consistent with localized or point sources such as improperly abandoned oil wells, old production sumps, USTs or landfills. A large number of these likely potential sources have been identified. CENCO requests the Regional Board's help in motivating the operators or owners of these potential sources to investigate them individually. Specifically, we request the following:

- Require the location of all oil wells in the area by their owners/operators along with gas testing at the wellhead and in the shallow vadose zone around the wellhead. CENCO would work cooperatively with the Board to identify these parties.

- Require UST owners whose tank areas have been inadequately characterized to do so.

- Request the Metropolitan Hospital provide any records they may have regarding their former landfill and to investigate the vadose zone in the area of the former landfill.

At this time CENCO is preparing a workplan to further investigate the shallow vadose zone in certain potential source areas on the property. This workplan will provide important information to assist in the methane source investigation as well as to further comply with CENCO's investigative obligations pursuant to Cleanup and Abatement Order No. 97-118. The workplan will be submitted to your office by August 30, 2002.

Finally, we note that in April of 2001, CENCO submitted a schedule to the Regional Board setting forth dates for the completion of various site response activities to be conducted pursuant to Cleanup and Abatement Order Nos. 85-017 and 97-118. Since that proposed schedule was submitted, a number of significant and material changes have occurred respecting the future use of the real property comprising CENCO's Santa Fe Springs refinery. As has been widely publicized in the local media, the refinery is currently the subject of on-going real estate development discussions and negotiations with various parties, including the City of Santa Fe Springs. While CENCO has not conclusively determined to abandon the efforts to re-start the refinery, because of the dramatic potential change in use of the subject real property, the staging of environmental response activities has necessarily been impacted, largely rendering the previously proposed time schedule obsolete. The timing and scope of future development will have a significant impact on the implementation of "on-site" environmental response activities. Once the scope and timing of future development plans have become more solidified, CENCO will submit a new schedule for implementing the required response activities.

In the interim, and as to "off-site" and other related required activities, CENCO has and will continue to focus on those components of the Cleanup and Abatement Orders that are not necessarily impacted by future real estate issues, including the additional off-site characterization

work to be addressed in CENCO's upcoming August 30, 2002, submittal. CENCO's anticipation is that such further characterization work will assist in evaluating and proposing to the Regional Board such interim and/or final remedial measures, and related health and safety evaluations, to address the off-site issues as deemed necessary by the Regional Board based upon existing data and data which are generated as the result of the issues discussed in this status report.

Please contact me at your convenience if you have any questions or comments regarding this status report or the proposed workplan.

Respectfully,
Ground Zero Analysis Inc.

Russell W. Juncal,
CA Registered Geologist No. 3864
CA Certified Hydrogeologist No. 171

cc: M. Barranco
D. Isola, Esq.

Administrative Record
No. 25

From: Paul Cho
To: Gzainc@aol.com
Date: 8/8/02 12:42PM
Subject: TO: Russel Juncal

Russell,

This is regarding CENCO.
We received a response from Alaska Petroleum regarding furher information that we requested in our review of the ongoing methane issue. Based on there report, methane AND fuel hydrocarbons are detected and fuel hc indicates it is migrating from CENCO.... fuel hc detected up to 21,000 ppm with detection of BTEX in ppm ranges... also, free product in wells adj. to PDC, MW-600 and 600A is thick and may increase.

Please let me know if you want to comment on this. Also, I am wondering whether you measured fuel hc last time or .. whether it is necessary to monitor. Let's discuss later about this.

Paul Cho
(213) 576-6721

Administrative Record
No. 26

GROUND ZERO ANALYSIS, INC.

1714 Main Street
Escalon, California 95320-1927
Telephone: (209) 838-9888
Facsimile: (209) 838-9883

2002 SEP 30 P 3:21

September 27, 2002

Mr. Paul K. Cho
Los Angeles Regional Water Quality Control Board
320 W. Fourth St., Suite 200
Los Angeles, CA 90013

Subject: **STATUS UPDATE - CHARACTERIZATION OF VADOSE ZONE METHANE, CENCO REFINING CO., SANTA FE SPRINGS, CA (SLIC #318A)**

Dear Mr. Cho:

We are writing on behalf of CENCO Refining Co. to update you on the status of activities to investigate and mitigate elevated levels of methane and combustible gases in the vadose zone near the CENCO Refinery in Santa Fe Springs.

As we have previously disclosed to you, CENCO has been sued by the Pacific Distribution Center Norwalk, LLC for damages related to the methane and combustible gas problem in the refinery area. The work we have been performing is focused directly on addressing the allegations of the lawsuit in addition to the issues initially raised in our meeting of February 14, 2002. The work performed to date has included; ambient air monitoring on the refinery property; evaluating potential sources of methane in the affected area; preliminary evaluation of potential methane transport into buildings using the an analytical vapor diffusion model, determining the area of vadose zone impacts using existing groundwater monitoring wells and evaluating potential interim or long-term mitigation strategies. Details on these activities were provided to you in previous status reports. Activities since our last update are summarized below:

Soil and Soil Gas Investigation Workplan

We are in the final stage of completing a Soil and Soil Gas Investigation Workplan. The Workplan is designed to investigate the nature, source(s) and extent of methane and hydrocarbons in the shallow vadose zone at and near the CENCO refinery as well as to address RWQCB concerns previously expressed about the need for additional soil investigation. At this time we anticipate submitting the Workplan for your approval within 2-3 weeks, with implementation commencing before the end of the year.

Soil Gas Source Evaluation

We have recently obtained additional files from the Dept. of Oil and Gas on abandoned oilwells in the refinery area. We are in the process of evaluating the data to identify those wells that appear to have the potential to release methane into the shallow subsurface. We intend to contact the responsible parties and ask that they take all appropriate remedial actions to properly re-abandon any such wells.

Preliminary Remedial Design

We have completed a conceptual remedial design targeting high soil gas concentrations. It is anticipated that areas of the highest soil gas concentrations identified during the upcoming investigation will be mitigated by soil vapor extraction.

If you have any questions or comments please contact Russell Juncal or me at your earliest convenience.

Respectfully,
Ground Zero Analysis Inc.

Gregory P. Stahl, RG 5023
CA Certified Hydrogeologist No. 264

cc: M. Barranco
D. Isola, Esq.